

# Panasonic

## Projection Television Operating Instructions

Model No.

**TC-43P400H  
TX-43P400H  
TX-43P400X  
TC-51P400H  
TX-51P400H  
TX-51P400X**



[ tau ]

FLAT  
DIGITAL

This is a combined Operating Instruction manual for all the above series of models. Please read these instructions before operating your set and retain them for future reference.

# ***Dear Panasonic Customer***

*Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new Projection television set.*

*To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference.*

*Retain your purchase receipt also, and note down the Model Number and Serial Number of your set in the space provided on the rear cover of these Instructions.*

*Visit our Panasonic Web Site*      <http://www.panasonic.co.jp/global/>

## **Important Information**

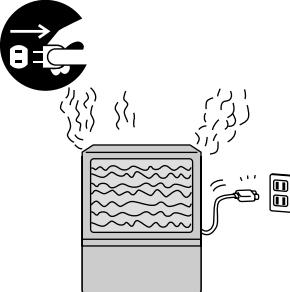
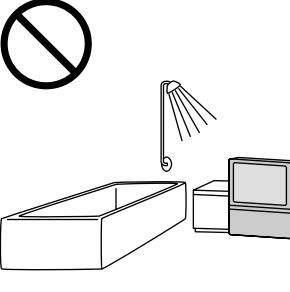
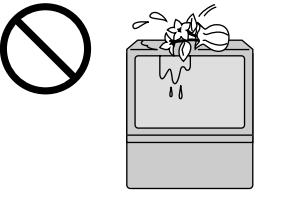
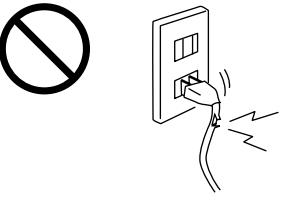
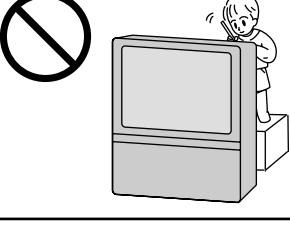
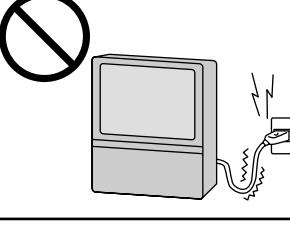
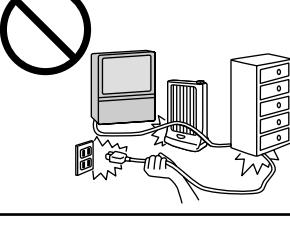
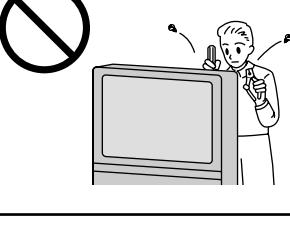
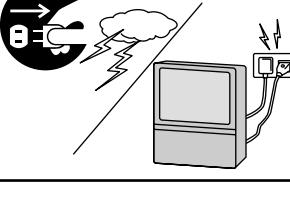
- (1) The long time (max. 2 hours) use of a TV game on this set is not recommended, since the signal from the TV game may cause damage to the picture projection tubes of the set.
- (2) Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Projection TV screen.  
Examples of still pictures include logos, video games, computer images and teletext.  
If still picture cannot be avoided, reduce the brightness and contrast levels of the picture to minimize any damage that might occur.
- (3) In order to minimize any damage to the projection tubes, this set uses the PICTURE SHIFT function (Refer to page 29) to change (shift) the entire picture approximately 2 mm every 15 minutes.

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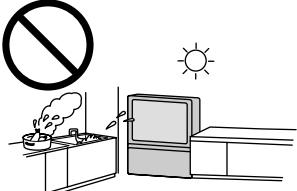
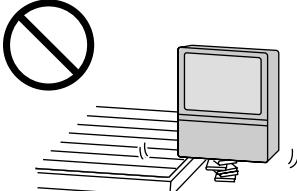
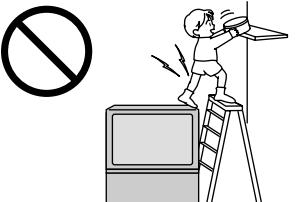
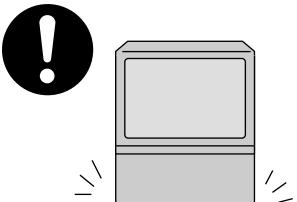
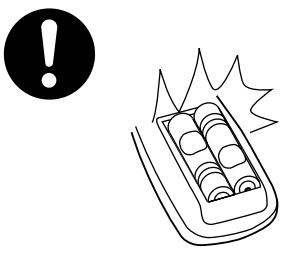
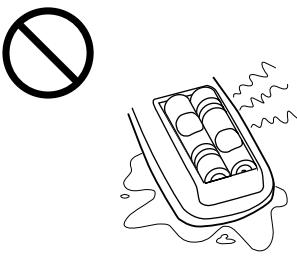
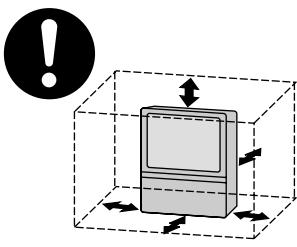
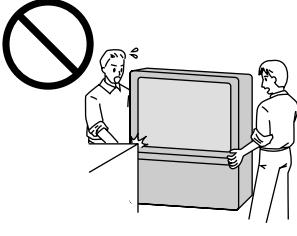
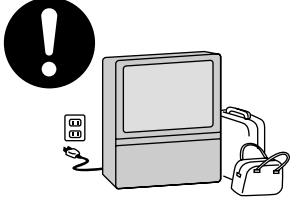
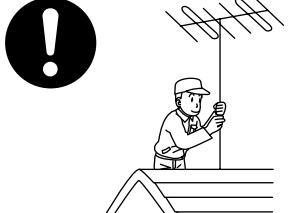
# Warnings and Cautions

## ! Warnings

	<p>Unplug the power cord in the event of any malfunction (screen goes blank, no sound, odd sounds, smoke or unusual odors coming from the unit). Unplug the power cord if foreign matter or water falls into the unit, or if the unit is dropped or the cabinet is damaged.</p>		<p>DO NOT use this unit near water. (Near a bath tub, etc.)</p>
	<p>DO NOT place any of the following on the unit: Flower vases, flower pots, cups, small metal objects, or cosmetics containers, chemicals or water.</p>		<p>DO NOT use if the power cord or power plug is damaged, or if the plug does not fit tightly into the socket.</p>
	<p>DO NOT insert foreign objects (metal or easily flammable objects).</p>		<p>DO NOT use at a voltage other than indicated</p>
	<p>TAKE CARE NOT to damage the power cord.</p>		<p>DO NOT remove the rear cover as live parts and High Voltage components are accessible when the rear cover is removed.</p>
	<p>DO NOT touch the aerial cable and this unit when there is lightning.</p>		<p>DO NOT touch the power plug if your hands are wet.</p>

## ! Cautions

 After-images appear	<p>Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Projection TV screen. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 16:9 mode.</p> <p><b>Note:</b> The permanent after-image on the Projection TV screen resulting from fixed image use is not an operating defect and as such is not covered by the Warranty. This product is not designed to display fixed images for extended periods of time.</p>
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<b>! Cautions</b>			
	<p>DO NOT place in humid or dusty location, or areas exposed to smoke or steam. DO NOT place in direct sunlight and other sources of direct heat.</p>		<p>DO NOT place in an unstable location.</p>
	<p>DO NOT stand, or place heavy objects on the unit. Particular care should be taken by families with small children.</p>		<p>Place in a safe location. Fix the TV to a wall. (refer to page 8)</p>
	<p>When inserting batteries, ensure that the polarities (positive and negative) are correctly aligned. Insert as shown on remote control. If inserted incorrectly, battery fluid may leak, and fire, injury, or damage to surrounding components may result.</p>		<p>Do not mix new and old batteries. Use only the specified batteries. Failure to follow this precaution may result in leakage of battery fluid. Fire, injury, or damage to surrounding components may also result.</p>
	<p>Adequate ventilation is essential to prevent failure of electrical components, we recommend that a gap of at least 10 cm (↔) is left all around this unit even when it is placed inside a cabinet or between shelves.</p>		<p>Turn the power "Off" before connecting other electrical equipment.</p>
	<p>Before cleaning, unplug the power plug from the socket.</p>		<p>DO NOT joint the unit.</p>
	<p>Unplug the power plug from the socket if you are not going to use the unit for an extended period.</p>		<p>Ask your sales outlet to install the aerial.</p>

To ensure continued excellent performance by this product, periodic cleaning is recommended. See page 42 for more information.

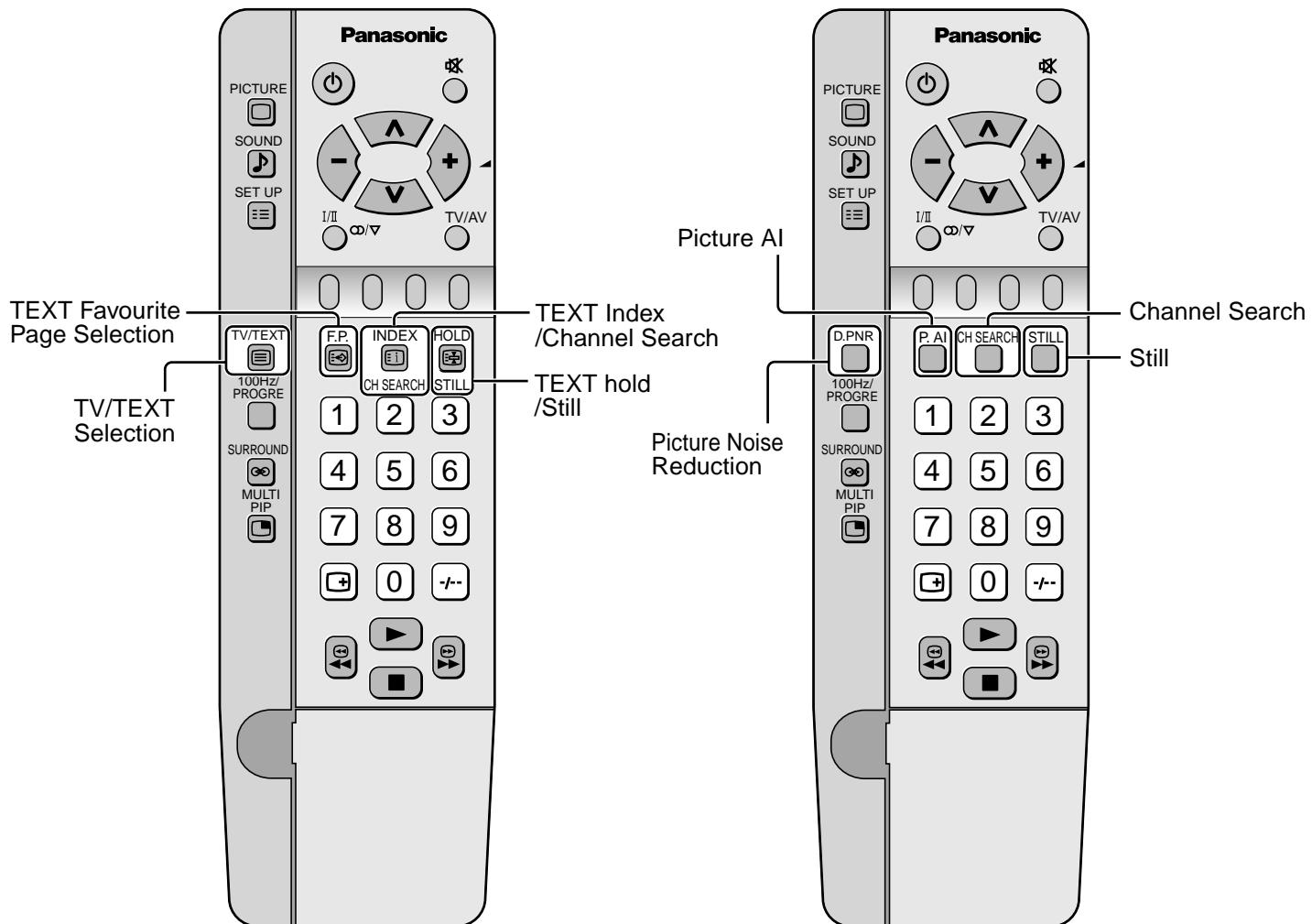
# Before Operating This Set

## How to Use This Manual

Check the Model Number of your TV set; the Model Number is shown on the rear cover name plate on the set. Use the table on the opposite page to confirm which features your particular Model is equipped with. This will help you to know which sections of the manual apply to your set.

TX-43P400H/X  
TX-51P400H/X

TC-43P400H  
TC-51P400H



### Note:

- Mainly the remote control for TX-43P400H/X and TX-51P400H/X is used as an example in the Operating Instructions.

## Quick Reference Guide for your TV Set

Please check the model number of your set.

This Manual applies to several Models and there are slight differences among them.

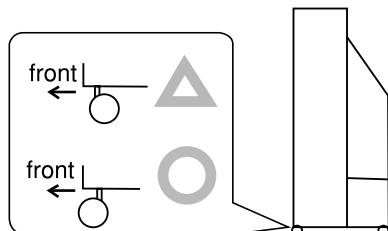
Please check the table below to see what your TV is equipped with before you begin using these Operating Instructions. Instructions are given for all functions, please disregard these which do not apply to your TV.

		Model Number					
		TC-43P400H	TC-51P400H	TX-43P400H	TX-51P400H	TX-43P400X	TX-51P400X
Destination	China						
	Hong Kong	*					
	Southeast Asia		*				
	NZ		*				
	Middle East				*		
Multi Language	English	*	*	*			
	Chinese	*	*				
	Arabic				*		
Power Source	AC 110-240 V 50 / 60 Hz				*		
	AC 220-240 V 50 / 60 Hz	*	*				

\* : Function available

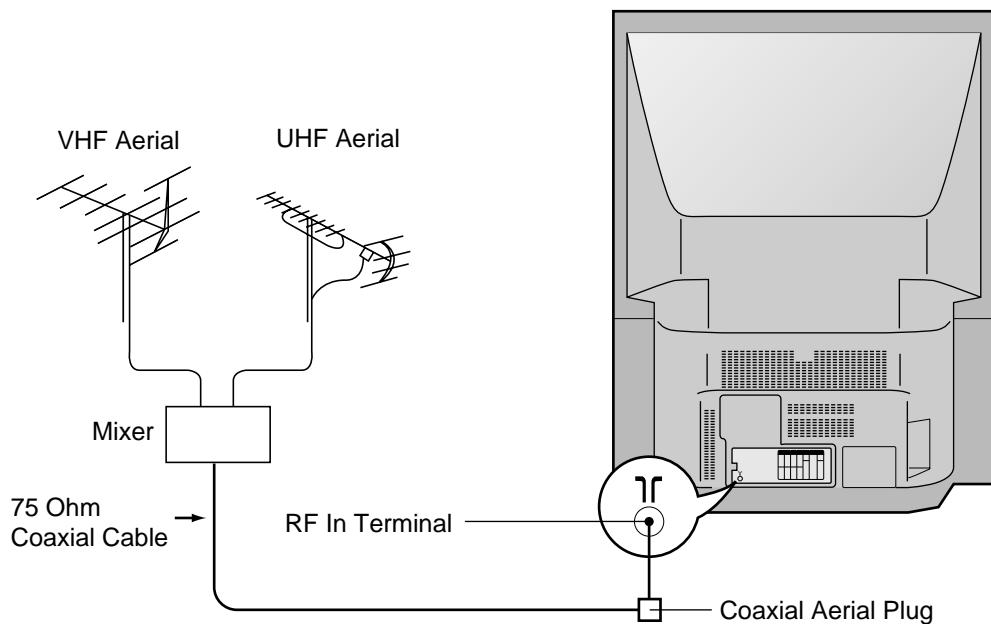
## Securing the casters

To prevent the set from tipping forward, turn the two casters on the front of the TV so they face forward, as shown in the picture.



## Before Operating This Set

### Connecting the Aerial Cable to the RF In Terminal

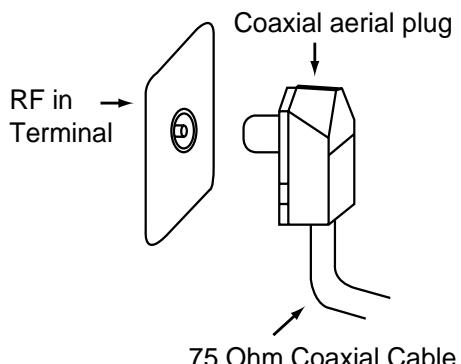


To obtain optimum quality picture and sound, an Aerial, the correct cable (75 Ohm coaxial) and the correct terminating plug are required.

If a communal Aerial system is used, you may require the correct connection cable and plug between the wall Aerial socket and your set.

Your local Television Service Centre or Dealer may be able to assist you in obtaining the correct Aerial system for your particular area and accessories required.

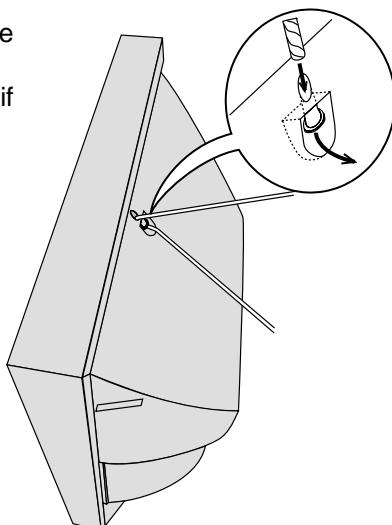
Any matters regarding Aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the Customer.



## Safety Precaution

Please take safety precautions to prevent the unit from falling over.

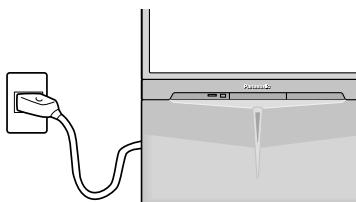
The unit may fall over during earthquakes, or if someone stands on or shakes the TV.



### Fixing to a wall

Use a strong rope or a chain to fasten the TV firmly to a strong support such as a wall or a pillar.

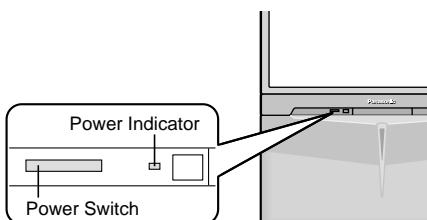
## Connecting the Plug to the Wall Outlet



### Notes:

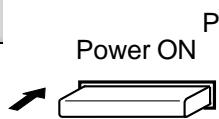
- Main plug types vary between countries. The main plug shown at left may therefore not be the type fitted to your set.
- The On/Off switch on this model does not fully disconnect the TV from the mains supply.

## How to Turn the Power On



Power Indicator  
No light: Power OFF condition

Note: Even when the Power Switch is "OFF", the TV set will still consume a small amount of power.



Push the Power switch on Television to turn the set on.

Power Indicator  
No light: Normal viewing condition  
Red : Stand by

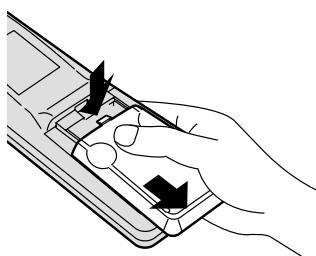
### Notes:

- When in the Stand-by condition (Refer to page 15), it is also possible to turn the TV set on by pressing any of the "Direct Programme Number Selection buttons" (0 - 9) or "Programme Number Up or Down buttons" on the TV set or on the Remote Control.
- If the Wall Outlet is switched OFF or the Main Plug is unplugged, when the TV set is again turned ON (by either connecting the Main Plug to the Wall Outlet or switching the Wall Outlet ON), it will have returned to the original state.

## Battery Installation

### 1 Open the cover.

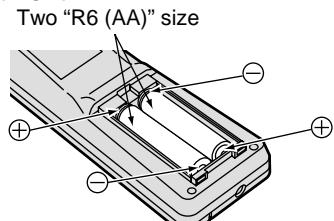
Apply slight downward pressure while pulling towards the bottom.



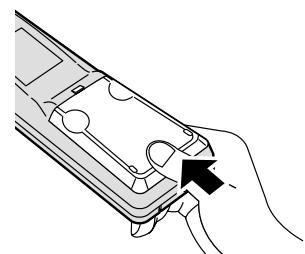
### 2 Batteries: Use two "R6 (AA)" size batteries.

Insert the batteries ensuring the correct polarities.

This is identifiable by the "+" and "-" symbols on the batteries and inside the battery compartment.



### 3 Replace the cover.



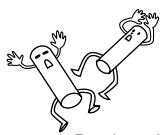
Do not use rechargeable (Ni-Cd) batteries.

They are different in shape and performance and may fail to ensure correct operation.

## ! Battery cautions

The incorrect use of batteries can cause electrolyte leakage which will corrode the Remote Control or cause the batteries to burst.

Old Batteries



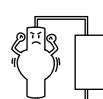
New Batteries



Replace both batteries at the same time.



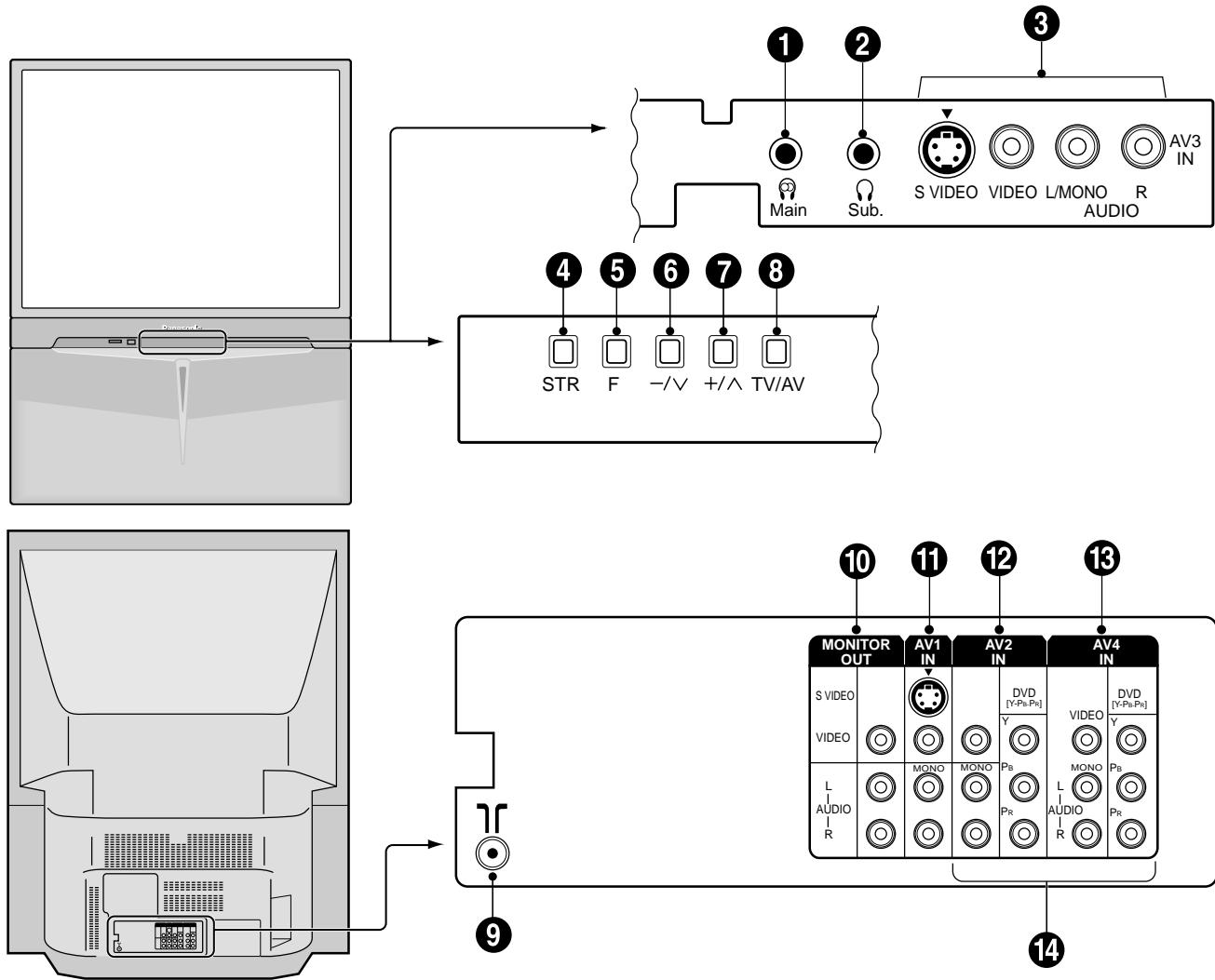
Don't mix different battery types.  
(alkaline with carbon zinc, etc.)



Don't Recharge.

# Location of Controls

## Controls and Terminals on the TV

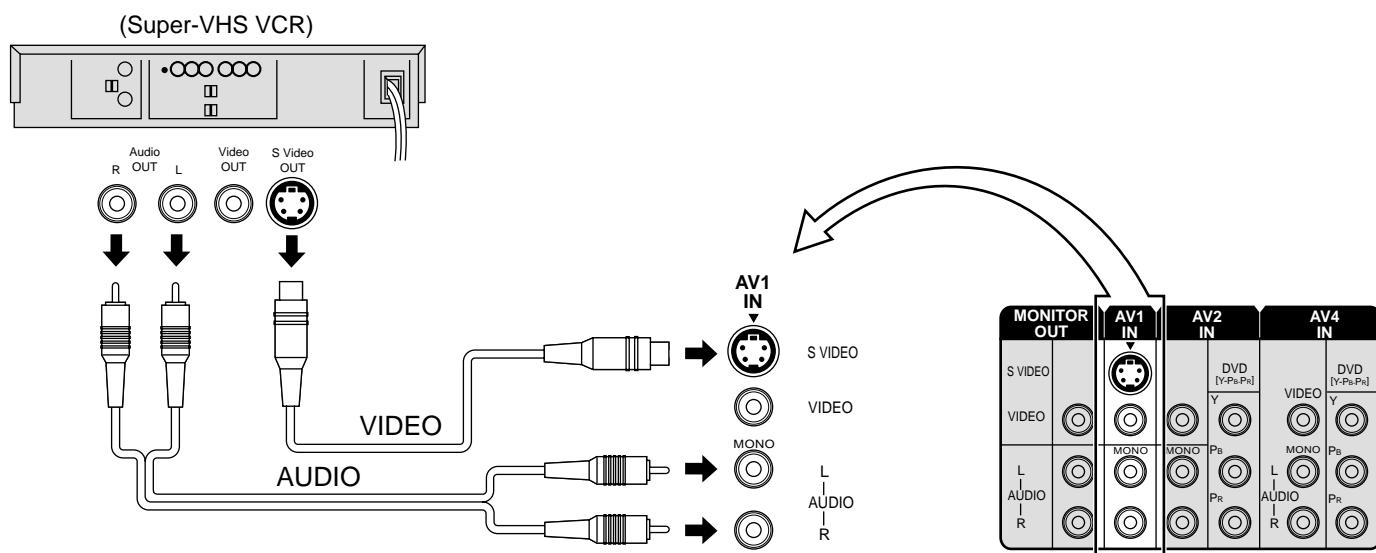
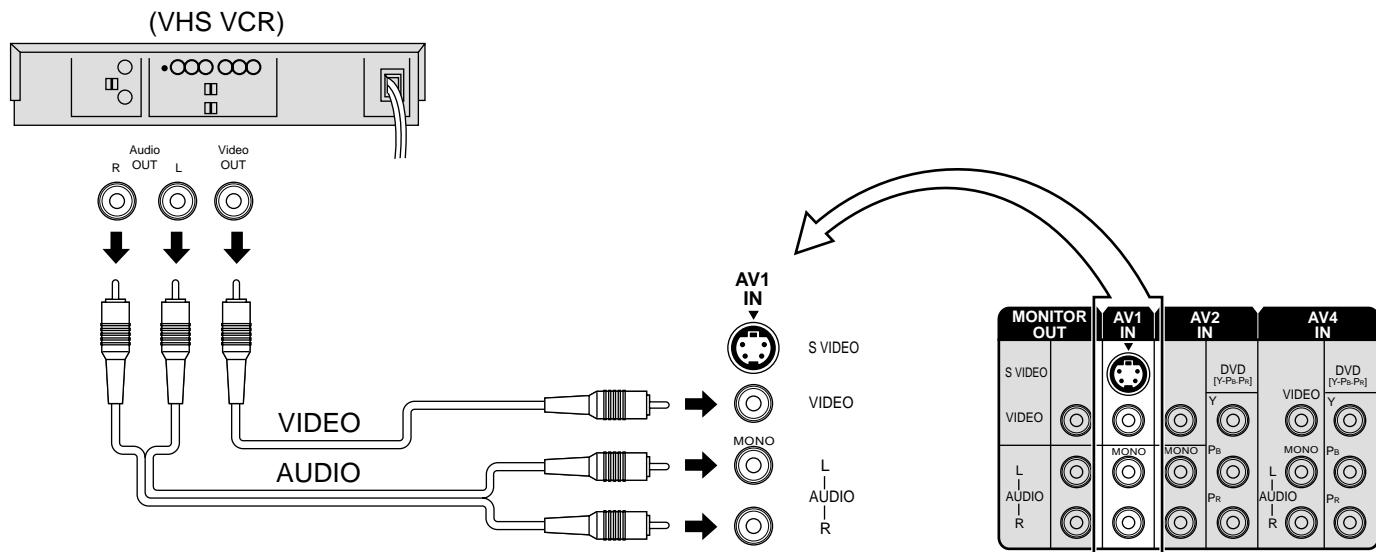


Item No.	Function	Refer to Page	Item No.	Function	Refer to Page
①	Main Headphones Jack	13	⑧	TV/AV Selection	14
②	Sub Headphones Jack	13	⑨	Aerial Terminal (RF In Terminal)	8
③	AV3 Input Terminals	11	⑩	Monitor Output Terminals	12
④	STR	14	⑪	AV1 Input Terminals	11
⑤	Function	14	⑫	AV2 Input Terminals	11
⑥	Volume Down (-) / Programme Number Down (▽)	14	⑬	AV4 Input Terminals	11
⑦	Volume Up (+) / Programme Number Up (△)	14	⑭	DVD (Y, Pb, Pr) Input	12

# Connections

## How to connect the “AV1, 2, 3 or 4” Input Terminals

Connect VCRs and other peripheral equipment

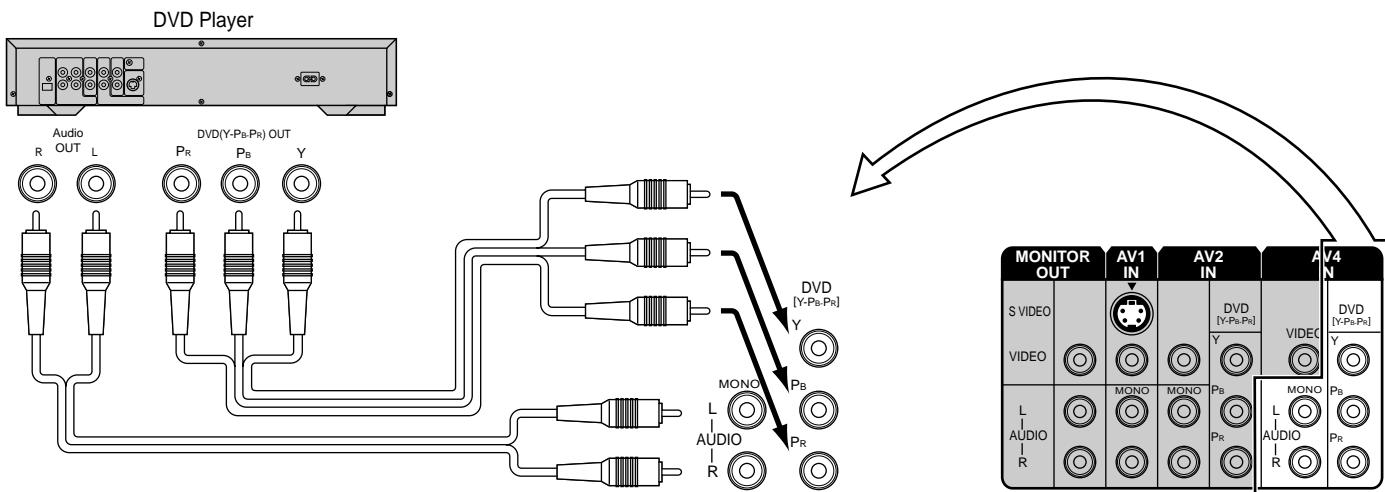


### Notes:

- When an S Video cable is connected to the S Video terminal, the corresponding Video input will be switched off and the signal from the S Video input will be used.
- When a Monaural VCR is used, connect the Monaural Audio cable to the Audio “L” (Left) terminal.
- Select the desired AV input position by pressing the TV/AV button. (Refer to page 15)
- Input 3 is located on the front of the unit.
- The AV2 and AV4 audio input terminals serve as the audio input terminal for both the Video input and the DVD input.

# Connections

## How to connect the DVD Input Terminals

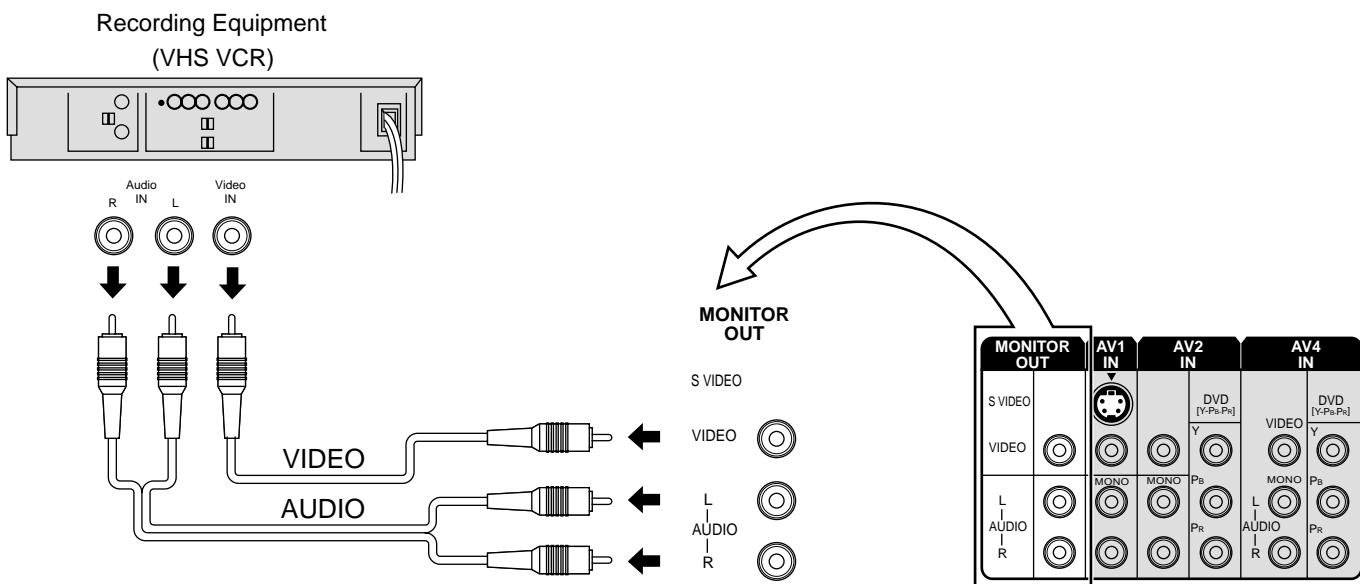


### Notes:

- The AV4 audio signal is common for both AV4 and DVD input signal terminals.
- The DVD signal input terminal takes priority over the AV4 video signal input terminal.
- Similar connection are available at the COMPONENT VIDEO input 2 terminal.

## How to connect the AV Monitor Output Terminals to other equipment

The "Monitor Out" Terminals output the same signals as main picture on the TV screen and sound from the speaker at that time, e.g. TV programmes or signals from AV1, AV2, AV3 or AV4 input.

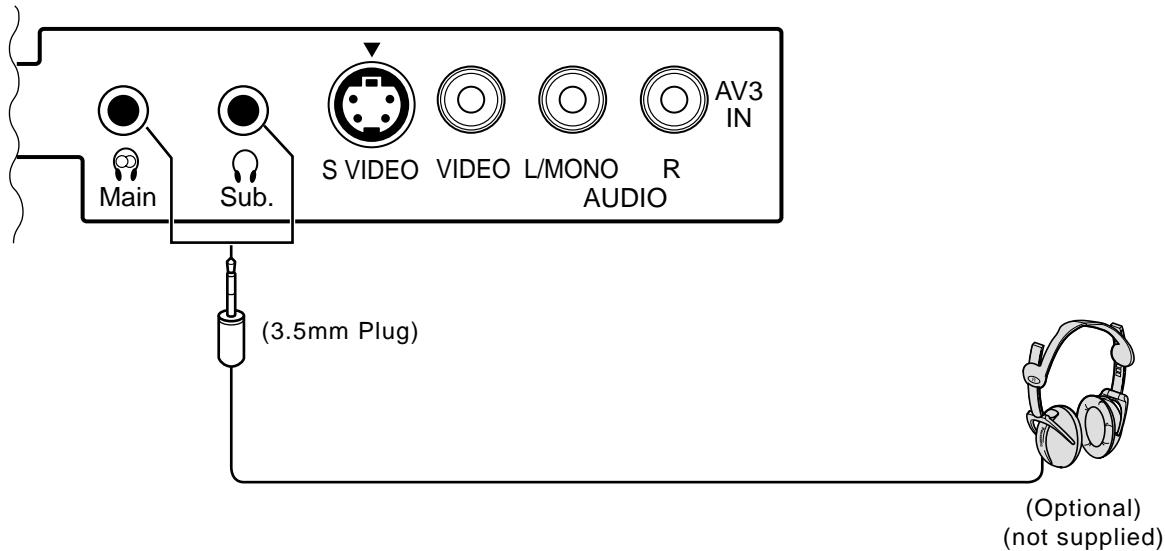


### Notes:

- Never connect the same video recorder with both the VIDEO IN and MONITOR OUT terminals on this TV set, as this could cause incorrect operation.
- The monitor output emits the main picture normal video and audio signals.
- Teletext display on screen will not be output at the MONITOR OUT terminals.
- Even if the television is in picture-in-picture condition, MONITOR OUT terminals output the same signals as main picture on the screen and sound from speakers. Sub picture including strobe, still, channel search, etc. will not be output at the MONITOR OUT terminals.
- The DVD signal (Y, Pb, Pr) is not output at the MONITOR out terminals.

## Connecting Headphones

Connect headphones as follows.



You can listen to sound from each of the headphones plugs as shown below.

Screen condition		Speaker Sound	Main Headphones	Sub Headphones	Monitor Output
Single picture/ Teletext	A	A (Stereo)	A (Stereo)	A (Mono)	A (Stereo)
Picture in Picture	A B	A (Stereo)	A (Stereo)	B (Mono)	A (Stereo)
Picture and Picture	A B	A (Stereo)	A (Stereo)	B (Mono)	A (Stereo)

### Main Headphones plug:

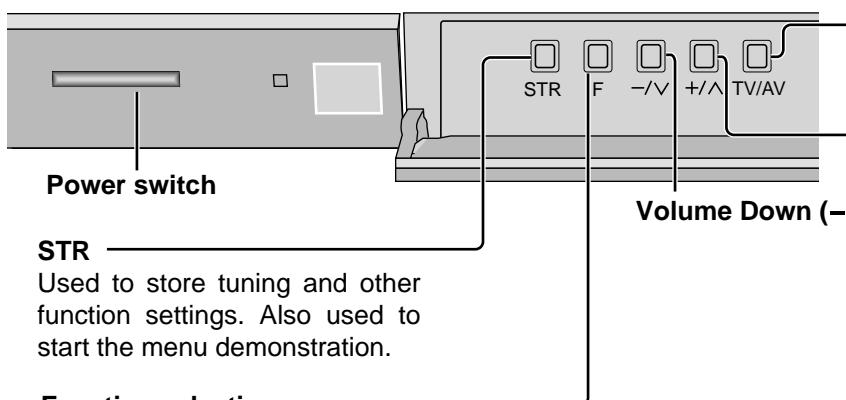
When a Main Headphones plug is inserted into the Headphones socket, all speakers will be automatically disconnected; only the Main Headphones will function.

Use Volume Up "+" or Down "-" button to control volume level.

### Sub Headphones plug:

For the sub Headphones volume control, refer to page 32.

# General Operation



**Power switch**

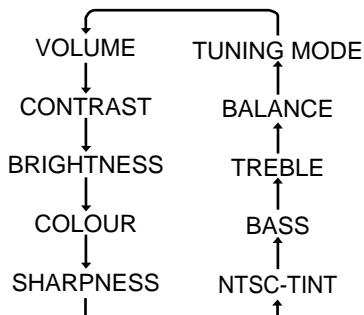
**STR**

Used to store tuning and other function settings. Also used to start the menu demonstration.

**Function selection**

Displays the on screen display functions, use repeatedly to select from the available functions.

The following adjustments can be accessed directly.



**Notes:**

- NTSC-TINT: Displayed when receiving NTSC signals.
- TUNING MODE : Not displayed during AV mode.

**Store** (see page 26, 27, 37)

Stores some settings in TUNING menus and TELE TEXT.

**TV/AV Selection**

Press to select TV, AV1, AV2, AV3 and AV4 input signal modes sequentially.

**Volume Up (+) /**

**Programme Number Up (^)**

**Volume Down (−) / Programme Number Down (v)**

**Picture Menu** (see page 16, 30)

**Sound Menu** (see page 16, 32)

**Set up Menu** (see page 17, 29)

**Stereo/Bilingual Sound Selection**  
(see page 39)

**TEXT Favourite Page Selection**  
(see page 37)

**TV/TEXT Selection** (see page 35, 36)

**100Hz/PROGRE** (see page 31)

**Surround** (see page 32, 33)

**Picture in Picture Selection**  
(see page 34)

**Recall**

Press to display the current system status, for example, Programme number, Channel number, Stereo mode, Picture menu, Sound menu, Scan mode, Sound system and colour system.

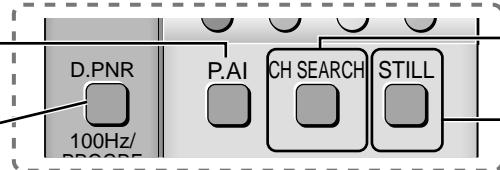
**VCR/LD/DVD Rewind/Review**

**Normalization** (see page 31, 33)

**TC-43P400H  
TC-51P400H**

**Picture AI** (see page 31)

**Picture Noise Reduction** (see page 31)



**Channel Search**  
(see page 35)

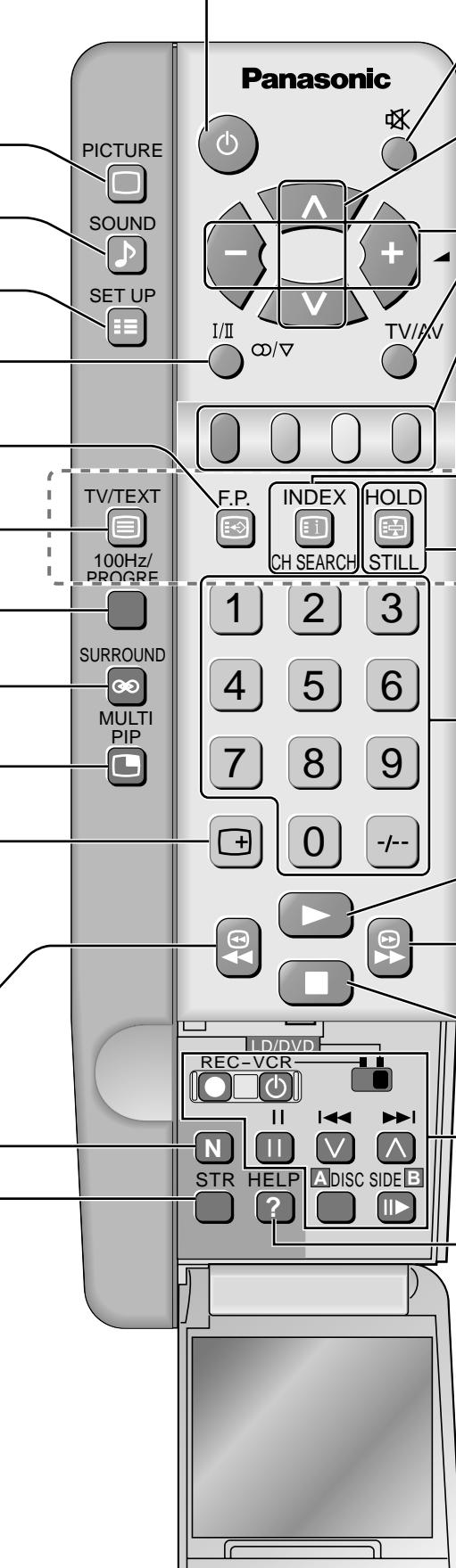
**Still** (see page 35)

## Power (Stand-by) (see page 9)

The TV set must first be plugged into the wall outlet and turned on at the power switch.  
Press this button to turn the TV set On from Standby mode. Press it again to turn the TV set OFF to Standby mode.

## Note:

- It is also possible to turn the TV set on from STANDBY mode by pressing the "Direct Programme Number Selection" Buttons (0-9) and the "Programme Number Up or Down" Button, either on the set or on the Remote Control.



## Coloured buttons used for Multi Screen functions (see page 34)

**Teletext functions** (see page 36)  
**AV selection** (see page 15)

**TEXT Index** (see page 38)  
**/Channel Search** (see page 35)

**TEXT hold** (see page 37)  
**/Still** (see page 35)

**AV1 AV2 AV3 AV4**

Press to display AV1 - AV4 at the bottom of the screen. Each coloured button corresponds to each input signals. For example, pressing the Red button selects AV1.

## Direct programme Number

### • Direct Programme Number Selection (CH SELECT = DIRECT)

You can select the number directly by pressing the corresponding programme number buttons.

Programme Number 8..... **8**

Programme Number 36..... **3**, **6**

Programme Number 124... **1**, **2**, **4**

### • Direct Programme Number Selection (CH SELECT = POSITION)

You can select the numbers directly by pressing "Number 0-9" buttons or by pressing "Two Digit" and "Number 0-9" buttons.

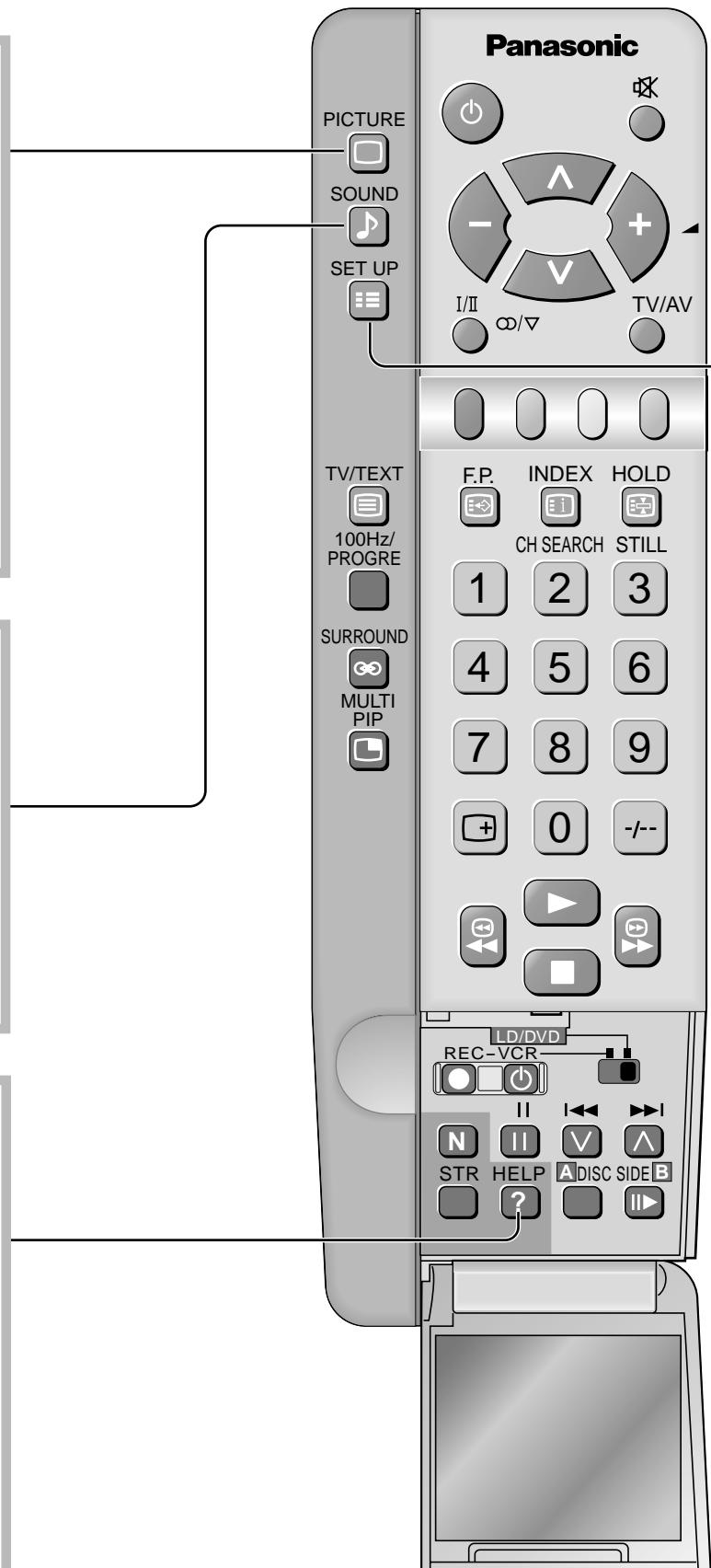
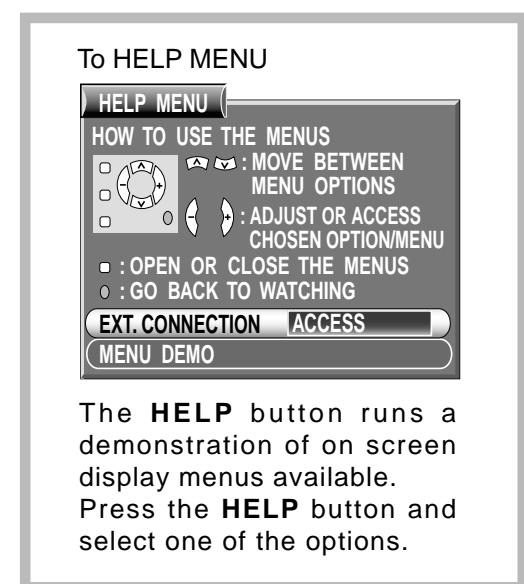
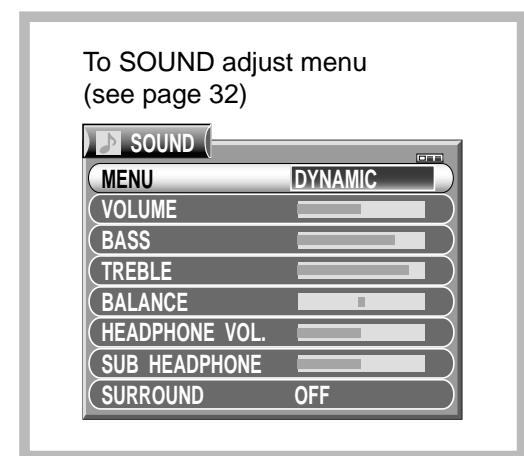
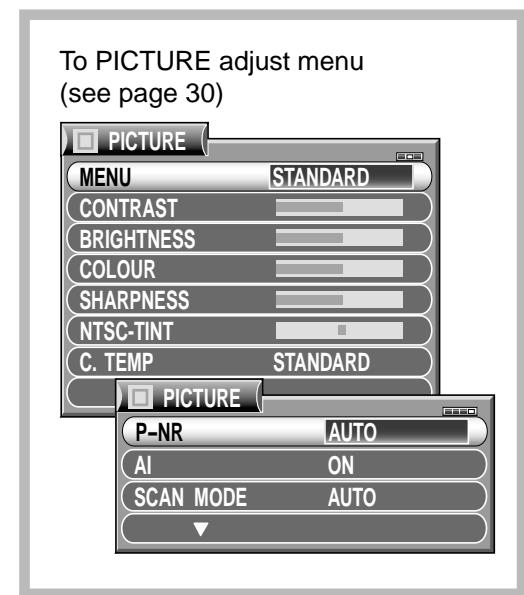
Programme Number 8 .... **8**

Programme Number 12.... **-**, **1**, **2**

## Note:

- When the Skip setting for Programme Number 100 through 125 is on, the channel selection time will be shortened, and thus you can not input three digits at a time.

# On-Screen menu Display from Remote Control

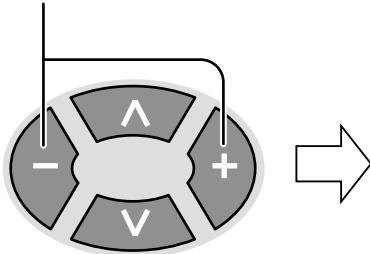


# On-Screen menu Display from Remote Control

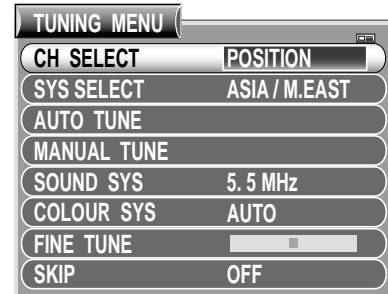
To SETUP MENU  
(see page 29)



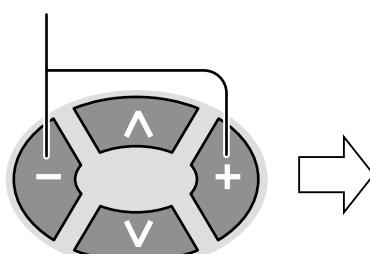
Press to access to TUNING MENU



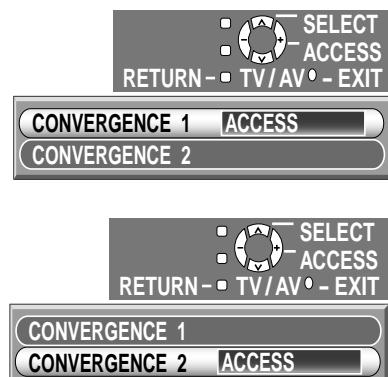
To TUNING MENU  
(see page 21)



Press to access to CONVERGENCE

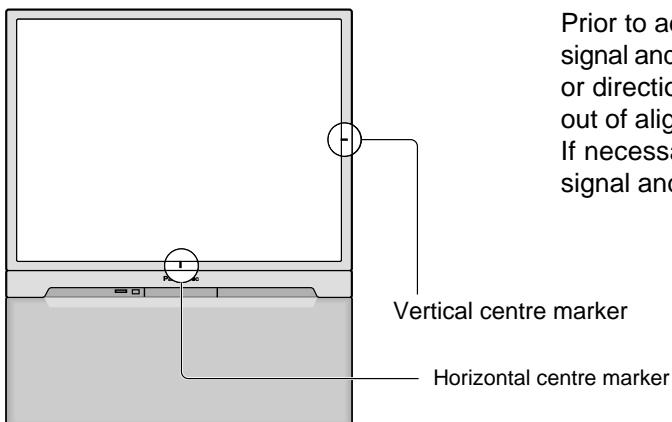


To CONVERGENCE  
(see page 18)



# Convergence Adjustment

## Convergence Adjustment mode



Prior to adjustment, tune the broadcast signal to the video input signal and operate the set for more than 60 minutes. If the location or direction of the set is changed or moved, the display may be out of alignment.

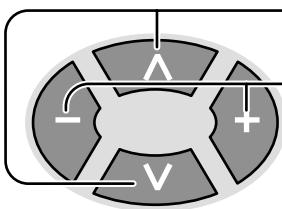
If necessary, carry out the following procedures once with PAL signal and again with the NTSC signal.

1



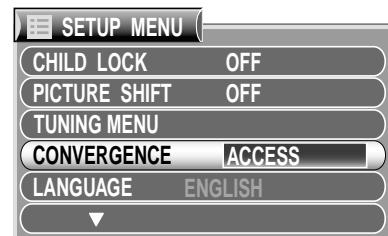
Press to display the Setup Menu.

2

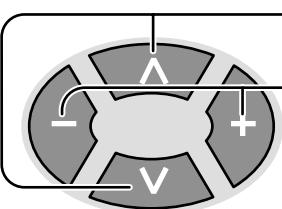


Press to select the "CONVERGENCE".

Press to access to the "CONVERGENCE" menu.

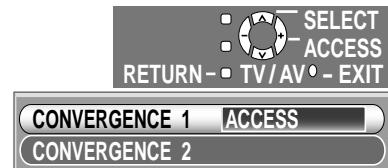


3



Press to select the "CONVERGENCE1" or the "CONVERGENCE2".

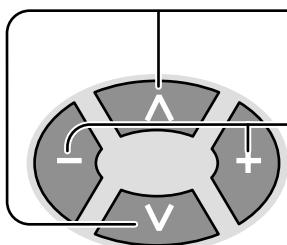
Press to access to the function.



Example: CONVERGENCE1 is selected.

## Convergence1 Adjustment for RED, BLUE and GREEN

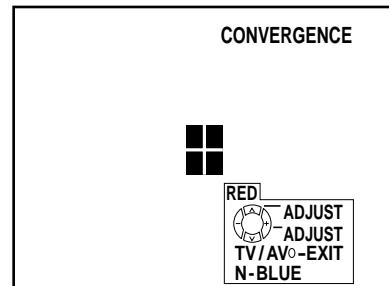
### RED



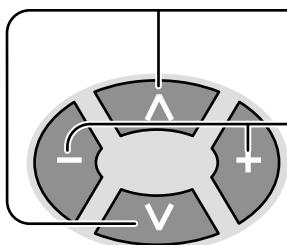
Press to align the horizontal red line with the horizontal blue line.  
(Becomes a white line)

Press to align the vertical red line with the vertical blue line.  
(Becomes a white line)

Press **N** button to adjust the blue mode.  
(Stores RED)



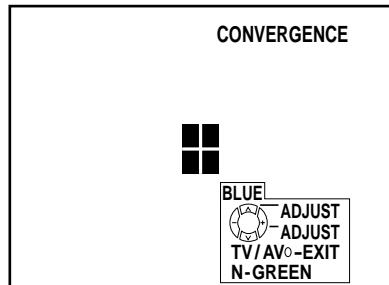
### BLUE



Press to align the horizontal blue line with the horizontal yellow line.  
(Becomes a white line)

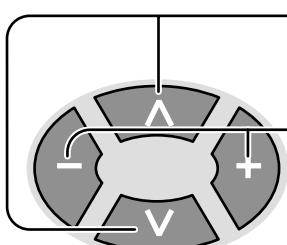
Press to align the vertical blue line with the vertical yellow line.  
(Becomes a white line)

Press **N** button to adjust the green mode.  
(Stores BLUE)



Only when you cannot adjust with RED and BLUE proceed to the following GREEN adjustment.

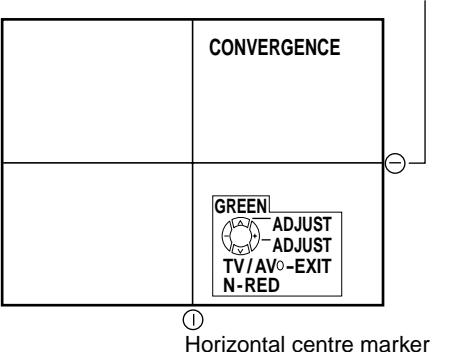
### GREEN



Press to align the horizontal green line with the vertical centre marker.

Press to align the vertical green line with the horizontal centre marker.

Press **N** button to adjust the red mode.  
(Stores GREEN)

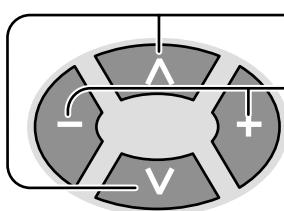


Press at any time to return to the normal viewing.

# Convergence Adjustment

## Convergence2 Adjustment for RED and BLUE

This function adjust the convergence of the side part of the screen.

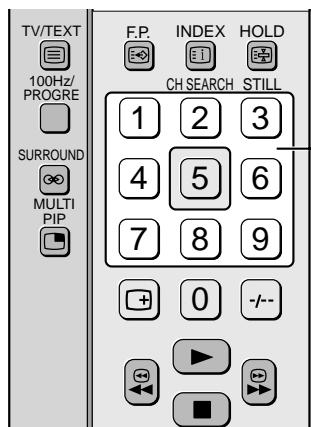


Press to select the CONVERGENCE2.

Press to access to the function.



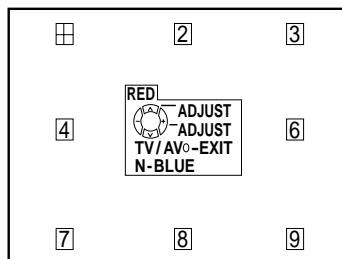
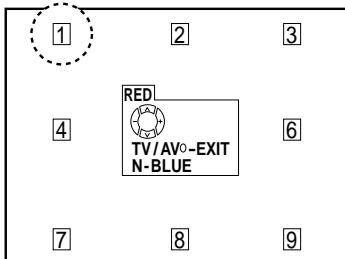
RETURN - □ TV/AV - EXIT



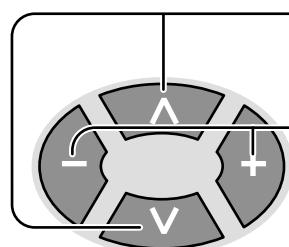
Remote control

Press the Number button on the Remote Control to select the position which you would like to adjust.

(Example) Position 1 is selected.



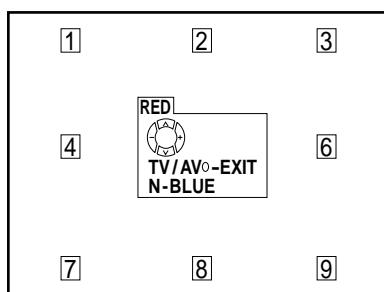
### RED



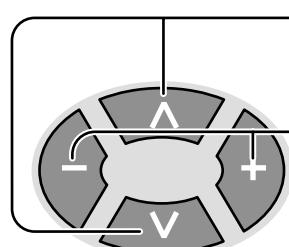
Press to align the horizontal red line with the horizontal blue line.  
(Becomes a white line)

Press to align the vertical red line with the vertical blue line.  
(Becomes a white line)

Press N button to adjust the blue mode.  
(Stores RED)



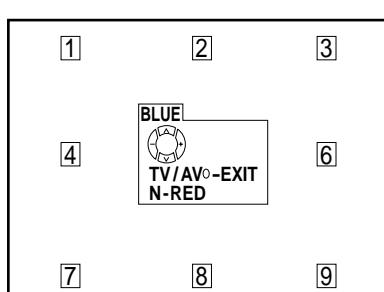
### BLUE



Press to align the horizontal blue line with the horizontal yellow line.  
(Becomes a white line)

Press to align the vertical blue line with the vertical yellow line.  
(Becomes a white line)

Repeat above adjustment for each position.



TV/AV



Press to return to the normal viewing. (Stores BLUE)

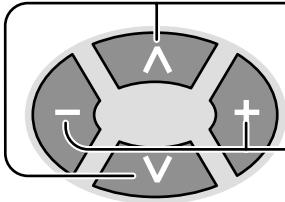
### Note:

If you wish to view a video with a different colour system (PAL / SECAM, NTSC), repeat the steps above while displaying a picture.

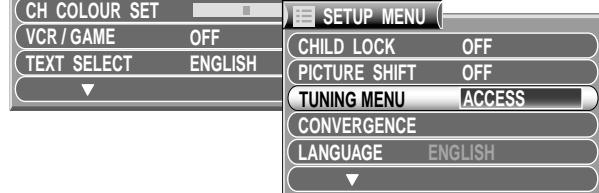
# Tuning Channels

## 1 Display the TUNING MENU

1 SET UP  
 Press to display the SETUP MENU.

2  
 Press to select the TUNING MENU.

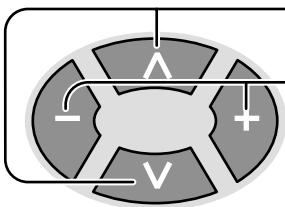
Press to display the TUNING MENU.



## 2

### 1 Select the "POSITION" or the "DIRECT"

#### CH SELECT

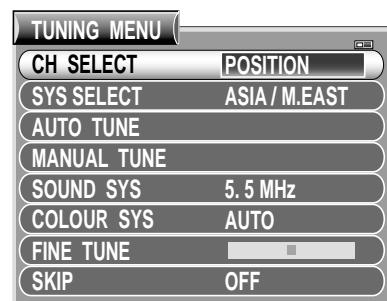


Press to select the "CH SELECT (Channel Select)" Mode.

Press to select the "POSITION" or the "DIRECT".

Setting range when the "POS." (Position) has been selected: Position 0-99

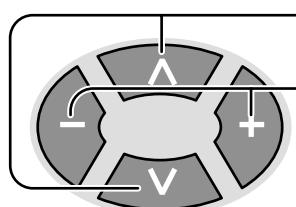
Setting range when the "DIRECT" has been selected: Channel 0-125



The channel select indicator will change as follows. DIRECT  $\longleftrightarrow$  POSITION

### 2 Regional System Selection

SYS SELECT (Before AUTO tuning and MANUAL tuning, set the "SYS SELECT" mode, as detailed below.)

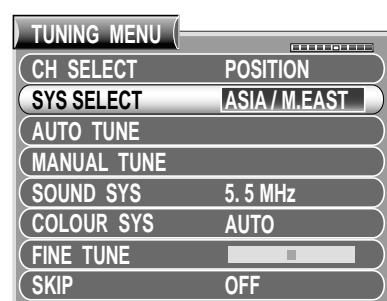


Press to select the "SYS SELECT".

Press to select the appropriate system.

The system select indicator will change as follows.

CHINA  $\longleftrightarrow$  HK/UK  $\longleftrightarrow$  ASIA/M.EAST  $\longleftrightarrow$  NZ/INDONES  $\longleftrightarrow$  AUSTRALIA  
JAPAN  $\longleftrightarrow$  CATV  $\longleftrightarrow$  AMERICA  $\longleftrightarrow$  SPECL VER  $\longleftrightarrow$  E.EUROPE



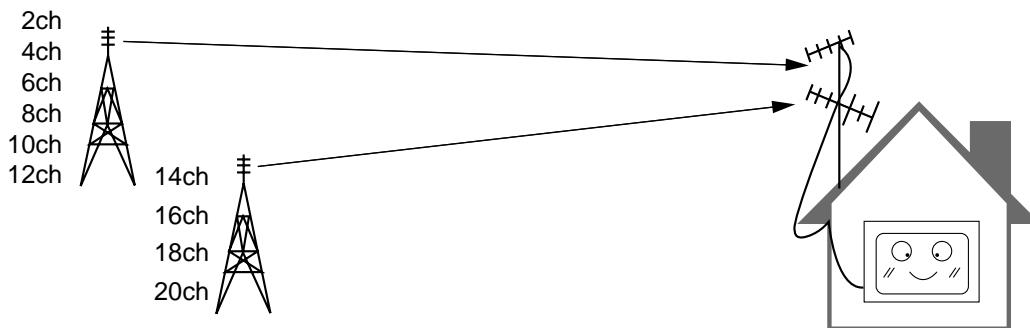
#### System Select by Regional

SYSTEM SELECT	Region
CHINA	China
HK / UK	Hong Kong, United Kingdom
ASIA/M.EAST	Malaysia, Singapore, Thailand, Asia countries, Kuwait, Saudi Arabia, United Arab Emirates, Middle East countries, etc.
NZ / INDONES	New Zealand, Indonesia, etc.
AUSTRALIA	Australia
E.EUROPE	CIS, Poland, etc.
SPECL VER	South Africa
AMERICA	U.S.A., Chile, Mexico, Panama, Peru, Philippines, Taiwan, Venezuela, etc.
CATV	USA CATV
JAPAN	Japan

# Tuning Channels

## Channel Selection

Select the most easily viewed channel selection method.



### POSITION SELECT

When the Channel Selection is on POS. (Position), and Auto Tune is performed, the unit memories the channels tuned in order from programme No.1.

Press the button **1** to view channel 2.

Press the button **2** to view channel 4.

Press the button **3** to view channel 6.

During position mode various reception channels can be viewed.

#### Example

Programme Number	Channel Display	Received Channel
1	2	2
2	4	4
3	6	6
4	8	8
5	10	10
6	12	12
7	14	14
8	16	16
9	18	18
10	20	20

### DIRECT SELECT

When the Channel Selection is on DIRECT, and Auto Tune is performed, the unit memories the programme number which is the same as the channel tuned.

This method allows you to select the desired channel by pushing the channel display number directly on the remote control to select the station. The channel display numbers for the broadcast stations in each region are listed on page 23.

#### Example

Programme Number	Channel Display	Received Channel
1	-	-
2	2	2
3	-	-
4	4	4
5	-	-
6	6	6
7	-	-
8	8	8
9	-	-
10	10	10
...	...	...
20	20	20
...	...	...

## Channel Allocation

- CATV (USA CATV) channel numbers as recommended by the joint EIA/NCTA Engineering committee and published as EIA INTERIM STANDARD No.6-CABLE TELEVISION CHANNEL IDENTIFICATION PLAN-MAY 1983.
- The receiving channels are as follows;

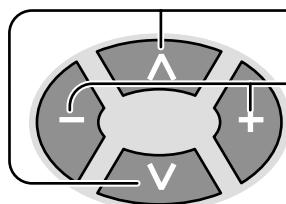
SYS SELECT	CHINA	HK/UK	ASIA/M.EAST	NZ/INDONES	AUSTRALIA	E.EUROPE	SPECL VER	AMERICA	CATV	JAPAN
CH DISPLAY	RECEIVE CHANNEL									
0	—	—	—	—	—	—	—	—	—	—
1	1	—	—	—	—	—	—	—	—	—
2	2	—	—	2	—	—	—	—	—	—
3	—	—	—	—	—	—	—	—	—	—
4	—	—	—	—	—	—	—	—	—	—
5	—	—	—	—	—	—	—	—	—	—
6	—	—	—	—	—	—	—	—	—	—
7	—	—	—	—	—	—	—	—	—	—
11	—	—	—	—	—	—	—	—	—	—
12	12	—	—	12	—	—	—	—	—	—
13	13	—	—	—	—	—	—	—	—	—
14	—	—	—	—	—	—	—	—	—	—
15	—	—	—	—	—	—	—	—	—	—
16	—	—	—	—	—	—	—	—	—	—
19	—	—	—	—	—	—	—	—	—	—
20	—	—	—	—	9A	—	—	—	—	—
21	—	21	21	21	—	—	—	—	—	—
22	—	—	—	—	—	—	—	—	—	—
23	—	—	—	—	—	—	—	—	—	—
24	—	—	—	—	—	—	—	—	—	—
28	—	—	—	—	—	—	—	—	—	—
57	57	—	—	—	—	—	—	—	—	—
58	—	—	—	—	—	—	—	—	—	—
59	—	—	—	—	—	—	—	—	—	—
62	—	62	62	62	—	—	—	—	—	—
63	—	63	63	63	—	—	—	—	—	—
69	—	69	69	69	—	—	—	—	—	—
70	—	—	—	—	—	—	—	—	—	—
73	—	—	—	—	—	—	—	—	—	—
74	—	S'1	S'1	S'1	—	—	—	—	—	—
75	—	S'2	S'2	S'2	—	—	—	—	—	—
76	—	S'3	S'3	S'3	—	—	—	—	—	—
77	—	—	—	—	—	—	—	—	—	—
78	—	—	—	—	—	—	—	—	—	—
79	—	—	—	—	—	—	—	—	—	—
80	—	S1	S1	S1	—	S1	S1	—	—	—
81	Z1	S2	S2	S2	—	S2	S2	—	—	—
89	Z9	S10	S10	S10	—	S10	S10	—	—	—
90	Z10	S11	S11	S11	—	S11	—	—	—	—
91	Z11	S12	S12	S12	—	S12	—	—	—	—
92	Z12	S13	S13	S13	—	S13	—	—	—	—
93	Z13	S14	S14	S14	—	S14	S14	—	—	—
94	Z14	S15	S15	S15	—	S15	S15	—	—	—
95	Z15	S16	S16	S16	—	S16	S16	—	—	—
96	Z16	S17	S17	S17	—	S17	S17	—	—	—
97	Z17	S18	S18	S18	—	S18	S18	—	—	—
98	Z18	S19	S19	S19	—	S19	S19	—	—	—
99	Z19	S20	S20	S20	—	S20	S20	—	99	C49
100	Z20	S21	S21	S21	—	S21	S21	—	100	—
117	Z37	—	—	—	80	—	—	—	—	—
118	—	—	—	—	—	S41	S41	—	—	—
120	—	S41	S41	S41	—	—	—	—	—	—
125	—	—	—	—	—	—	—	—	125	—

# Tuning Channels

## Automatic Tune

This TV uses automatic tuning to determine whether or not the TV can receive a broadcast signal which is being sent, and automatically prepares so that the channel selection can respond to both the position select and direct select modes. Before Automatic Tune, Channel Select and Regional System must already be set (Refer to pages 21).

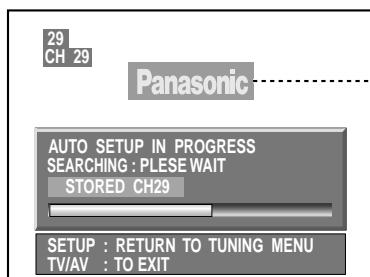
### 1 AUTO TUNE



Press to select the "AUTO TUNE".

Press to access to the "AUTO TUNE".

↓ Search Start.

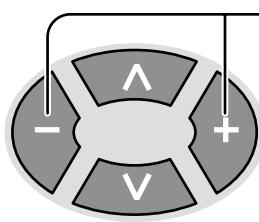


TUNING MENU	
CH SELECT	POSITION
SYS SELECT	ASIA / M.EAST
AUTO TUNE	ACCESS
MANUAL TUNE	
SOUND SYS	5.5 MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF

When a station is found.

The best tuning position is automatically memorized.

### 2 SOUND SYS



After all stations are tuned, the on-screen display will automatically change from "AUTO TUNE" to "SOUND SYS" Position.

Press to improve the Sound quality, if the Sound is not clear or no sound is produced on a programme Number Position.

→ 4.5MHz ↔ 5.5MHz ←  
→ 6.5MHz ↔ 6.0MHz ←



Press to store the Sound System.



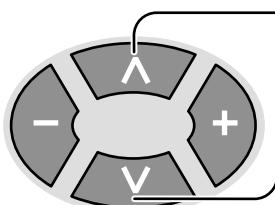
Press to exit from the Tuning Menu.  
This returns the set to the normal viewing condition.

TUNING MENU	
CH SELECT	POSITION
SYS SELECT	ASIA / M.EAST
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5 MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF

### Note:

When the sound volume is too small to confirm, turn it up by using the sound volume button on the remote control.

### 3



Under the normal viewing condition press to enter each programme Number.  
Confirm the tuning condition.

If necessary, repeat step 2 for each Programme Number.



## Helpful Hint

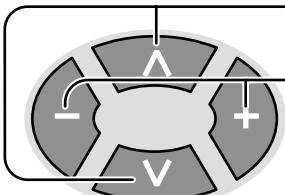
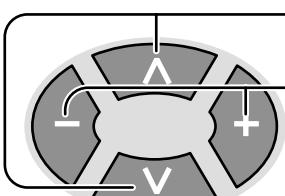
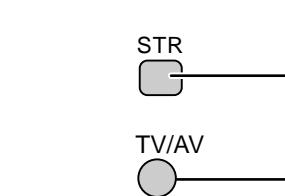
(1) If a clear picture with correct colours cannot be obtained when a Broadcast or AV signal is received, refer to the "Colour System Selection" operation on page 28.

(2) After the Automatic tune is finished, under the normal viewing condition press this button to confirm the tuning condition for each Programme Number. If some Programme Numbers are unused (no TV stations), it is possible to skip such Programme Numbers. Please refer to the Programme Number Skip operation on page 27.

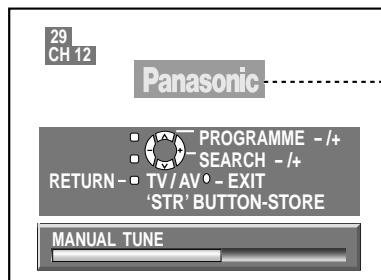
## Manual Tune

Before Manual Tune, Channel Select and Regional System must already be set (Refer to page 21).

### 1 MANUAL TUNE

- ①  Press to select the MANUAL TUNE.
  - ②  Press to access to the MANUAL TUNE.
  - ③  Press to select the desired Programme Number.
  - ④  Press to select the higher or lower channel.
- ↓ Search Start.

TUNING MENU	
CH SELECT	POSITION
SYS SELECT	ASIA / M.EAST
AUTO TUNE	
MANUAL TUNE	ACCESS
SOUND SYS	5.5 MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF

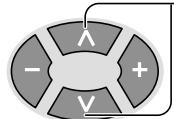


### 2 SOUND SYS

-  Press to display the SETUP MENU.
- ↓
- Proceed to the TUNING MENU, and then to the SOUND SYS ( refer to page 28).

### 3 Adjust the Sound System ( refer to page 24 step 2 to 3).

#### Helpful Hint

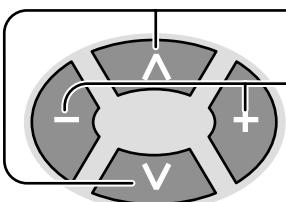
- (1) If a clear picture with correct colours cannot be obtained when a Broadcast or AV signal is received, refer to the "Colour System Selection" operation on page 28.
- (2)  After the Manual tune is finished, under the normal viewing condition press this button to confirm the tuning condition for each Programme Number. If some Programme Numbers are unused (no TV stations), it is possible to skip such Programme Numbers. Please refer to the Programme Number Skip operation on page 27.
- (3) When using a VCR without video and audio input/output terminals, it is convenient to connect the aerial cable as indicated in the instruction manual of VCR and to set the designated channel to programme No. "0". In that case, perform manual tune after setting the colour system and sound system in advance. Further, in multi-system VCR, it is more convenient to set the designated channel to several programme Numbers.

# Tuning Channels

## Fine Tuning

Under normal reception conditions this function is not required or necessary.

However, in areas of poor reception or constant interference, a slight adjustment of the tuning may improve the picture and sound quality.

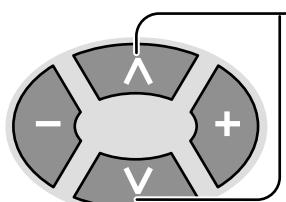
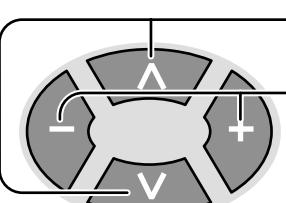
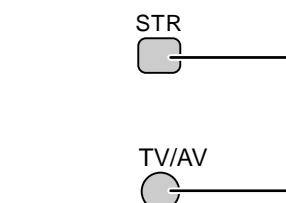
- 1  Press to select the FINE TUNE.  
Press until the clear picture is received.

TUNING MENU	
CH SELECT	POSITION
SYS SELECT	ASIA / M.EAST
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5 MHz
COLOUR SYS	AUTO
FINE TUNE	<input type="checkbox"/>
SKIP	OFF

- 2  Press to store the FINE TUNE.  
This stores the FINE TUNE to the selected Programme Number.
- 3  Press to exit from the FINE TUNE.  
This returns the set to the normal viewing condition.

## How to Cancel the Fine Tuning

Cancelling previously adjusted (manually) fine tuning, means re-activating the AFT (Automatic Fine Tuning). Re-activating the Automatic Fine Tuning means allowing the set to automatically tune to the optimum tuning position, for that programme Number.

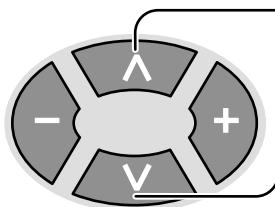
- 1  Select the Programme Number which you would like to return to Automatic Fine Tuning (cancel the manual fine tuning).
- 2  Press to display the SETUP MENU.  
  
  
Proceed to the TUNING MENU (refer to page 21).
- 3  Press to select the MANUAL TUNE.  
 Press to access to MANUAL TUNE.  
Press briefly to tune the best position.
- 4  Press to store the AFT.  
This stores the re-activated AFT.
- 5  Press to exit from the MANUAL TUNE.  
This returns the set to the normal viewing condition.

TUNING MENU	
CH SELECT	POSITION
SYS SELECT	ASIA / M.EAST
AUTO TUNE	
MANUAL TUNE	ACCESS
SOUND SYS	5.5 MHz
COLOUR SYS	AUTO
FINE TUNE	<input checked="" type="checkbox"/>
SKIP	OFF

## Programme Number Skip

It is possible to skip Programme Number on which no TV stations are tuned appearing on the screen. The function is only effective when selecting Programme Numbers by pressing the Programme Number Up or Down button either on the TV set or on the Remote control.

1



Under the normal viewing condition press to select the Programme Number you'd like to skip.

2

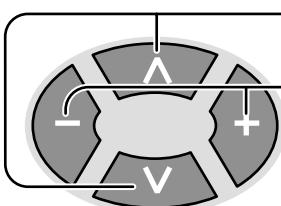


Press to display the SETUP MENU.



Proceed to the TUNING MENU (refer to page 21).

3



Press to select the SKIP.

TUNING MENU	
CH SELECT	POSITION
SYS SELECT	ASIA / M.EAST
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5 MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	ON

Press to change the mode to "ON".

4



Press to store the Skip function.



Press to exit from the SKIP.

This returns the set to the normal viewing condition.

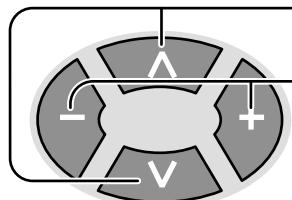
5



Repeat Step 1 to 4 for each Programme Number for which the Skip function is desired.

## How to Cancel the Skip Function

1



Press to select the SKIP.

TUNING MENU	
CH SELECT	POSITION
SYS SELECT	ASIA / M.EAST
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5 MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF

Press to change the mode to "OFF".

2



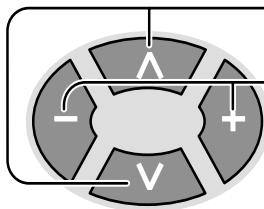
Press to store the Skip function.

# Tuning Channels

## Sound System Selection (Different region use differing systems)

This function is used only in the TV mode when the sound is not clear or no sound is produced on a Programme Number, and is not applicable in AV mode.

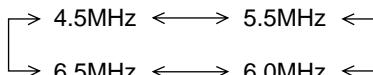
1



Press to select the "SOUND SYS".

Press until the optimum sound is obtained.

The sound system will change as shown.



TUNING MENU	
CH SELECT	POSITION
SYS SELECT	ASIA / M.EAST
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5 MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF

Sound System Condition.

**Note:**

These are different sound broadcast transmission systems applicable to differing countries.

2



Press to store the Sound System.



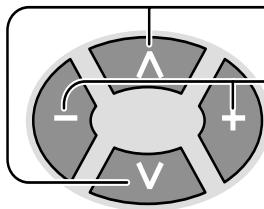
Press to exit from the "SOUND SYS".

This returns the set to the normal viewing condition.

## Colour System Selection (Different region use differing systems)

If a clear picture with correct colours cannot be obtained when a Broadcast or AV signal is received, this function is used.

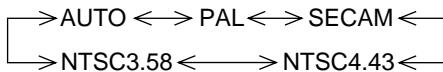
1



Press to select the "COLOUR SYS".

Press to produce the optimum image.

The colour system will change as shown.



TUNING MENU	
CH SELECT	POSITION
SYS SELECT	ASIA / M.EAST
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5 MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF

Colour System Condition.

**Note:**

PAL, SECAM and NTSC 3.58 are different colour signal broadcast transmission systems applicable to differing countries. NTSC 4.43 is a trick playback mode used in special VCR to playback NTSC recorded video tapes through PAL television equipment.

2



Press to store the Colour System.



Press to exit from the "COLOUR SYS".

This returns the set to the normal viewing condition.

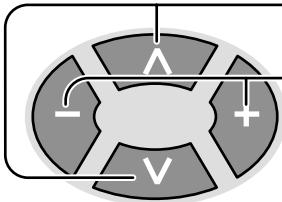
# Setup Adjustment

1



Press to display the SETUP MENU.

2



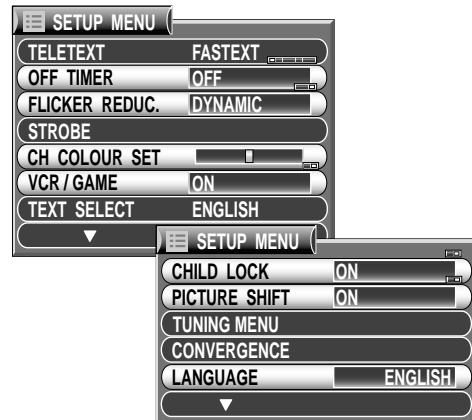
Press to select the desired function.

Press to adjust or change the function.

3



Press to go back to watching TV.



## OFF TIMER

Switches the TV off within a preset time which you can choose from between 0 to 90 minutes in 15 minutes intervals.

→ OFF <→ 15 <→ 30 <→ 45 <  
→ 90 <→ 75 <→ 60 <

## FLICKER REDUCTION

Lets you control any picture movement. Set to Dynamic to activate motion compensation, to smooth the image and get rid of picture movement. Set to Normal to correct minor picture movement, or if slight ghosting of figures occurs when using the Dynamic setting. Set to Off to have no flicker reduction at all, occasional broadcasts may benefit from using this setting.

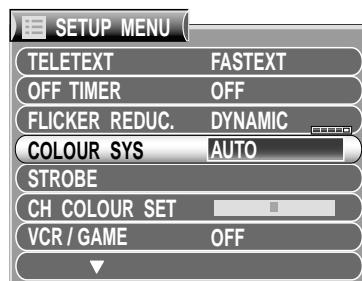
→ OFF <→ NORMAL <→ DYNAMIC <

### Note:

In NTSC when set the SCAN MODE to 100Hz MODE, this function is not available.

## COLOUR SYSTEM

During AV mode, COLOUR SYSTEM is displayed. (refer to page 26)



## CH COLOUR SET

Colour density varying between broadcast channels can be adjusted to three levels for each reception channel.

## VCR/GAME

Reproduction of irregular signals, such as certain TV games and rental video tapes, may be improved.

## CHILD LOCK

If the Child-Lock function is set ON, picture and sound of the TV/AV mode being viewed will disappear and a Black screen will appear.

## PICTURE SHIFT

For use as a screen saver, this function changes the entire picture position (shift) approximately 2 mm every 15 minutes.

## LANGUAGE

When you first install the TV, the On Screen Display language is set according to your choice of region. LANGUAGE lets you change the language used for On Screen Displays (refer to page 7).

[ for TC-43/51P400H, TX-43/51P400H ]  
English ←→ Chinese

[ for TX-43/51P400X ]  
English ←→ Arabic

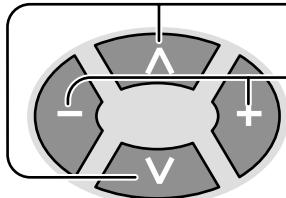
# Picture Adjustment

1



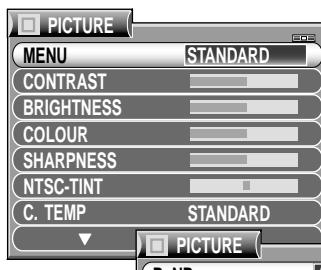
Press to display the Picture Menu.

2



Press to select the desired function.

Press to adjust or change the function.



3



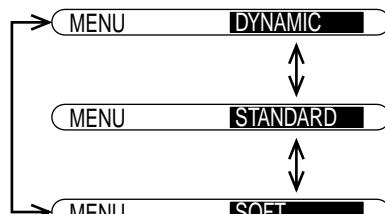
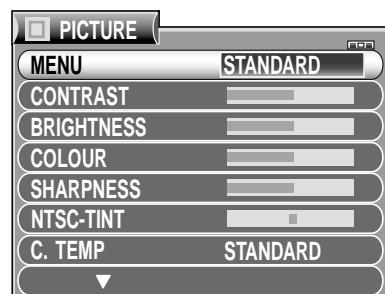
Press to go back to watching TV.

## MENU

Picture menu mode will be memorized for each TV, AV1, AV2, AV3 and AV4 mode.

- You can change the level of each Item (CONTRAST, BRIGHTNESS, COLOUR, SHARPNESS and NTSC-TINT) for each Picture Menu (DYNAMIC, STANDARD and SOFT).

Picture Menu	Function
DYNAMIC	For viewing in brighter environments. This menu selects a higher than normal levels of Brightness and Contrast.
STANDARD	For viewing in normal (evening lighting) environments. This menu selects the normal levels of Brightness and Contrast.
SOFT	For viewing in a dark room. This menu selects reduced levels of Brightness and Contrast.

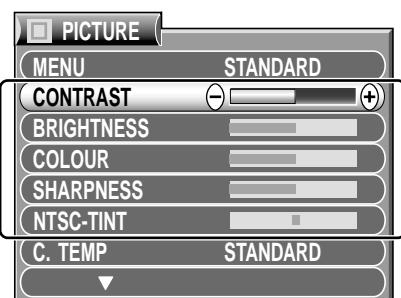


## CONTRAST, BRIGHTNESS, COLOUR, SHARPNESS, NTSC-TINT

Increase or decrease the levels of CONTRAST, BRIGHTNESS, COLOUR and SHARPNESS options according to your personal preference.

With an NTSC-TINT signal source connected to the TV, the picture hue can be adjusted to suit your taste.

Item	Effect	Function
CONTRAST	( - ) Less ( + ) More	Adjust for contrast.
BRIGHTNESS	( - ) Darker ( + ) Brighter	Adjusts for easier viewing of dark pictures such as night scenes and hair.
COLOUR	( - ) Less ( + ) More	Adjusts slightly to a lighter colour.
SHARPNESS	( - ) Less ( + ) More	Displays a sharp image.
NTSC-TINT	( - ) Reddish ( + ) Greenish	Adjust for proper skin colour.

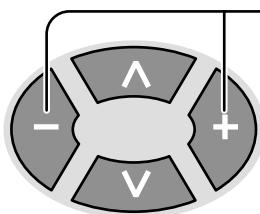


### Notes:

- When set to Multi PIP mode, the main and sub pictures are both adjusted simultaneously.
- When the TV is receiving NTSC signals, NTSC-TINT is displayed and level adjustment would be possible.
- Only CONTRAST will be displayed during TEXT mode.

## C. TEMP

(Colour Temperature)



Set the overall colour tone of the picture.

Press to switch between modes

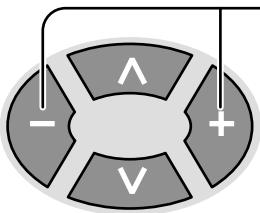
→ STANDARD <→ WARM <→ COOL <

## PICTURE

MENU	STANDARD
CONTRAST	[progress bar]
BRIGHTNESS	[progress bar]
COLOUR	[progress bar]
SHARPNESS	[progress bar]
NTSC-TINT	[progress bar]
C. TEMP	STANDARD

## P-NR

(Picture Noise Reduction)



Automatically reduces undesired picture noise.

Press to switch between modes

→ OFF <→ STRONG <

→ AUTO <→ WEAK <

## PICTURE

P-NR	AUTO
AI	ON
SCAN MODE	AUTO

## AI

(Artificial intelligence)

Automatically analyses the incoming picture and processes it to give improved contrast and optimum depth of field.

ON <→ OFF

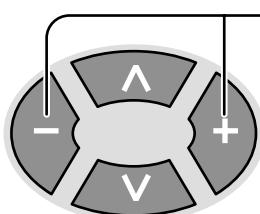
TC-43P400H, TC-51P400H: Switching is also possible using on the remote control.

## PICTURE

P-NR	AUTO
AI	ON
SCAN MODE	AUTO

## SCAN MODE

Choose the screen refresh method:



Press to switch between modes

→ AUTO <→ 100 Hz MODE <→ PROGRESSIVE <

## PICTURE

P-NR	AUTO
AI	ON
SCAN MODE	AUTO

MODE	Function
AUTO	The TV software will select the best mode for the signal being viewed.
100 Hz MODE	100Hz will give a steady picture for most signal transmission.
PROGRESSIVE	Recommended when receiving NTSC signals.

Switching is also possible using on the remote control.

### Note:

We recommend that you set **Scan mode** to **Progressive** when viewing a PAL 60 or NTSC transmission. When viewing a PAL transmission (other than PAL 60) with **Scan mode** set to **Progressive**, the screen will flicker, this is not a fault.



## Helpful Hint (Normalization)

By pressing the Normal "N" Button on the Remote Control while the Picture menu is displayed, the selected menu will be changed to the Normal Mode.

Normalization will not occur if the menu is not displayed when the "N" Button is pressed.

The Normal mode is the factory preset condition. Returning to this original condition is called "Normalization".

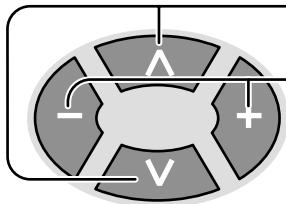
# Sound Adjustment

1



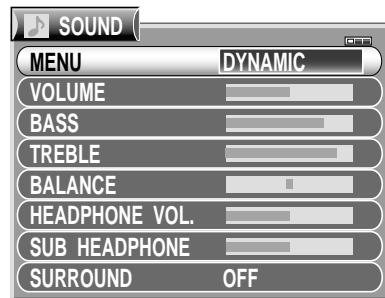
Press to display the Sound Menu.

2



Press to select the desired function.

Press to adjust or change the function.



3



Press to go back to watching TV.

## Note:

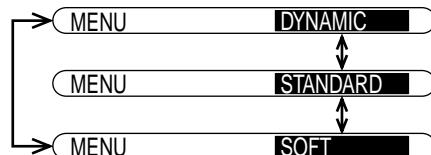
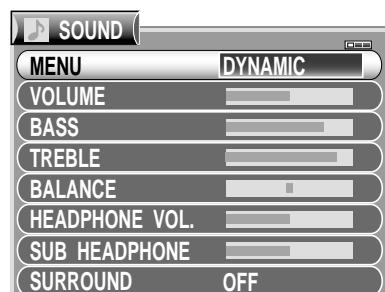
Some features are only available with the Surround feature switched off. Press to switch between On and Off.

## MENU

Sound menu mode will be memorized for each TV, AV1, AV2, AV3 and AV4 mode.

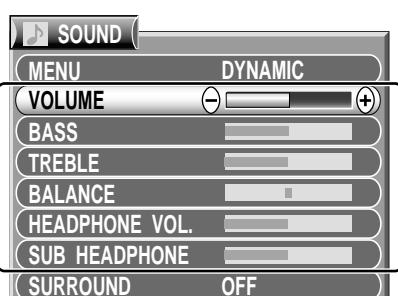
- You can change the level of each Item (VOLUME, BASS, TREBLE, BALANCE, HEADPHONE VOL and SUB HEADPHONE) for each Sound Menu (DYNAMIC, STANDARD and SOFT).

Sound Menu	Function
DYNAMIC	Amplifies the Low frequencies and outputs optimum sound. For music programmes for example.
STANDARD	For Normal use.
SOFT	Human voices (middle pitch sounds) will sound more clear.



## VOLUME, BASS, TREBLE, BALANCE, HEADPHONE VOL., SUB HEADPHONE

Item	Effect	Function
VOLUME	Less  More	Adjusts output volume.
BASS	Less  More	Adjusts low sounds.
TREBLE	Less  More	Adjusts high sounds.
BALANCE	Left SP. Right SP.	Adjust left and right volumes.
HEADPHONE VOL.	Less  More	Adjust Headphone volume.
SUB HEADPHONE	Less  More	Adjust Sub Headphone volume.



## Notes:

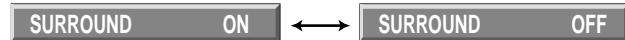
- When set to Multi PIP mode, the main and sub sound are both adjusted simultaneously.
- When using one of the double window features, note that the headphones will relay the soundtrack for the programme in the main window, not the smaller window.

## SURROUND MENU

SURROUND



Press to switch between ON and OFF.



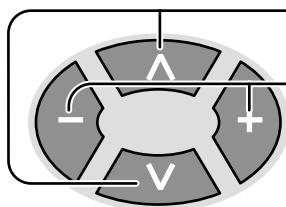
OR

SOUND



Press to display the Sound Menu.

SOUND



Press to select the SURROUND function.

Press to switch between ON and OFF.

The benefits of surround sound are enormous. You can be completely enveloped in sound; just as if you were at a concert hall or cinema.

The surround effect can be obtained without the use of external surround speakers.



## Helpful Hint (N)Normalization

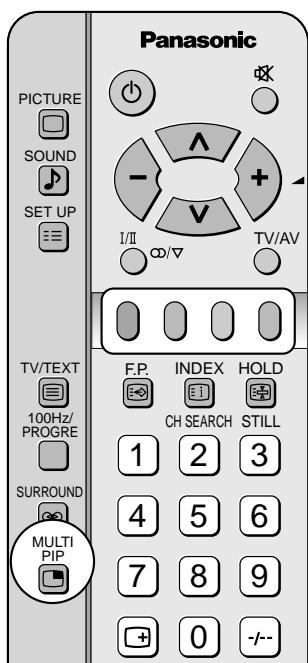
By pressing the Normal "N" Button on the Remote Control while the Sound menu is displayed, the selected menu will be changed to the Normal Mode.

Normalization will not occur if the menu is not displayed when the "N" Button is pressed.

The Normal mode is the factory preset condition. Returning to this original condition is called "Normalization".

# Multi Screen

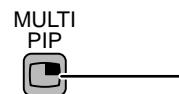
## Multi PIP



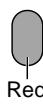
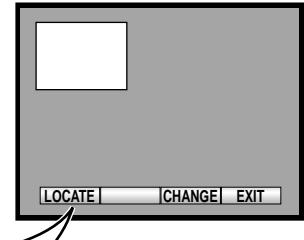
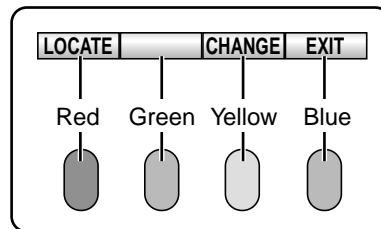
Press **MULTI PIP** to select the current programme, the **picture in picture** feature, or the **picture and picture** feature.

The on screen selector keys for the features (corresponding to the four coloured buttons on the remote control) appear and disappear after a few seconds. If you would like to select an operation when the keys are not shown, press **MULTI PIP** once more and the keys will reappear.

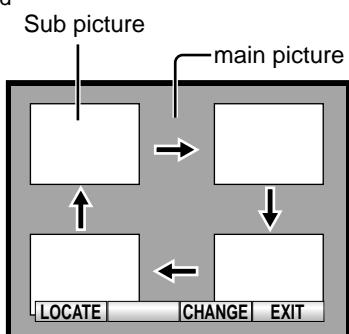
### Picture in Picture (PIP)



Press to view two pictures (sub picture in main picture) at the same time.



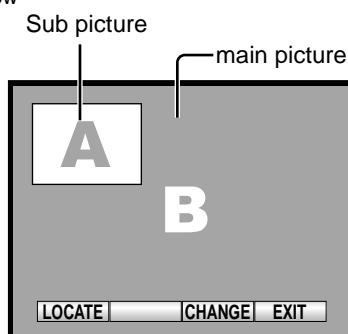
**Press the Red button:**



Each time the location of the sub picture is changed.



**Press the Yellow button:**



Each time the main picture and the sub picture are swapped.

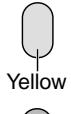


**Press the Blue button to exit from the PIP mode.**

### Picture and Picture

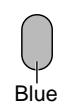


Press twice to view two pictures (picture and picture) at the same time.



**Press the Yellow button:**

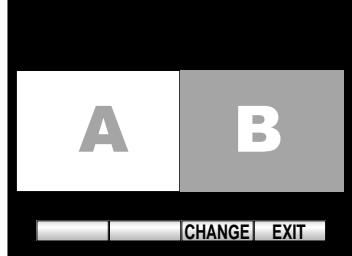
Each time the picture in the left and the picture in the right are swapped.



**Press the Blue button to exit from the PIP mode.**

**Note:**

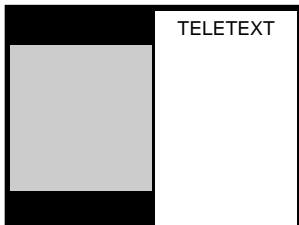
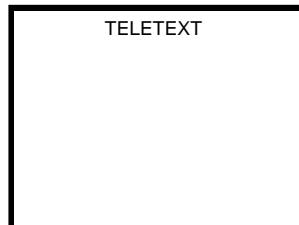
MULTI PIP operations cannot be made during progressive (Y, Pb, Pr) signal input.



## Picture and text (No indication for TC-43P400H and TC-51P400H)



Press to select watching the current programme, the teletext or the **picture and text** feature.



**TELETEXT mode**

**Picture and text mode**

### Note:

The remote control affects the teletext page; so select watching the current programme before making any changes to the programme.

## Still

HOLD



STILL



Press to freeze the picture, press again to return to watching the current programme.

## Channel Search

INDEX



CH SEARCH



Press to show freeze-frames of the programmes being broadcast on all of the stored channels. These images are displayed in series clockwise around the edge of the screen, starting from the top left.

The current programme is displayed in the centre of the screen, still playing.

HOLD



STILL



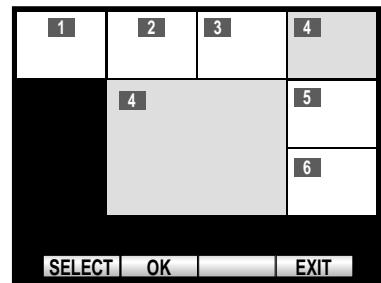
Press to pause the search.

Press again to cancel the pause.



Re-starts the search.

Press to exit from the feature.



**Channel Search**

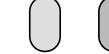
INDEX



CH SEARCH



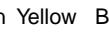
Red



Green



Yellow



Blue



Press to watch the current programme (displayed centre screen), exiting the feature.

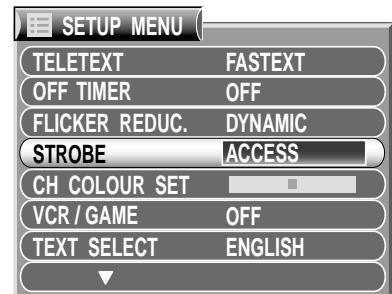
Press to watch the selected channel, exiting the feature.

Press to select each channel's freeze-frame in turn.

## Strobe

Lets you take a series of freeze-frame photos of a piece of action (for example: the finish of a race).

(Access **Strobe** via the **Setup** menu, see page 29). Takes a series of up to twelve freeze-frame images (one second delay between each image being taken) from the current programme watched.



HOLD



STILL



Press to pause (freeze) the Strobe, press again to continue taking the freeze-frames.



Press to exit from the **Strobe** feature and return to watching the current programme.

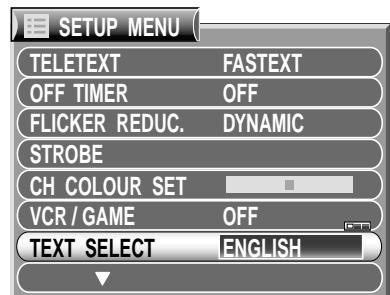
# TELE TEXT (No indication for TC-43P400H & TC-51P400H)

Teletext features may vary depending on the Broadcasting Companies and are only available when the channel selected is transmitting Teletext.

## TEXT SELECT (No indication for TC-43P400H and TC-51P400H)

Select character set, so that all characters needed are available for text on teletext pages (eg: cyrillic characters, etc).

→ ENGLISH ⇡ CIS ⇡ E.EUROPE <



## TV / Teletext mode

TV/TEXT



Press to select the current programme, the teletext and the picture or the teletext feature .

PICTURE

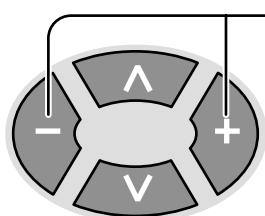


Press to display the contrast function with a cyan bar.

SOUND



Press to display the volume function with a green bar.



Press to alter the setting as required.

CONTRAST



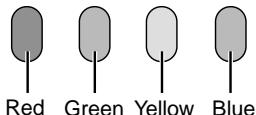
VOLUME



SET UP



Press to display special function options at the bottom of the screen.



Press to select the desired function.

## LIST / FASTEXT mode

Choose 2 modes.

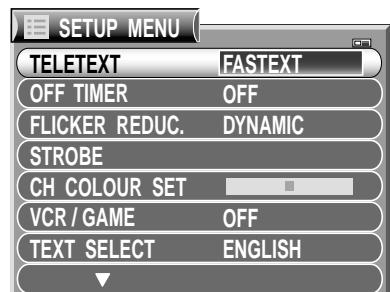
LIST ⇡ FASTEXT

LIST mode:

Four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory.

FASTEXT mode:

Four differently coloured subjects are situated at the bottom of the display. To access more information , press the appropriately coloured button. This mode enables fast access to information on the subjects shown.

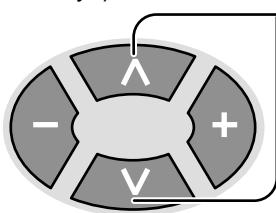


## Note:

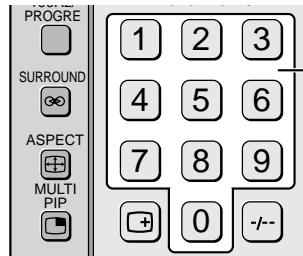
Characters will be illegible unless you select the Text Language which matches the text being received. Select the correct LANGUAGE (Refer to page 29).

**Page Selection**

(Two ways)



Press to increase or decrease the page number by one.



Enter the page number directly using 0-9 on the remote control.

**Full / Top / Bottom**

Press to display special functions.



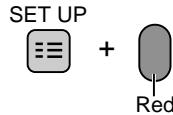
Press the **Green** button to expand the Top half.



Press again to expand the Bottom half.



Press again to return to normal (FULL) size.

**Reveal**

Press to reveal hidden words e.g. quiz page answers. Press again to hide.

**List Store**

In LIST mode the four page numbers can be altered (programme positions 1 - 25 only). Press one of the four coloured buttons and enter the new page number.



Press and hold, the page numbers will change to white indication and the page is stored.

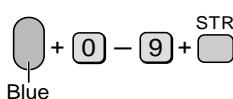
**Hold**

Press to hold the Teletext page when viewing multi-page information.



 is displayed on the top left of the screen.

Press again to return to automatic page update.

**Favourite Page (F.P.)**

Stores a favourite page in memory for instant recall. (programme positions 1 - 25 in List mode only).

Press the **Blue** button, select the page number, then press and hold  . The page number is now stored.



Press to recall the stored page number.

# TELE TEXT

	Teletext page	News Flash	Update
SET UP  + Yellow	Press to display special functions to view the TV picture whilst searching for a Teletext page. When found a page.	Press to view the TV picture When a news flash page has been selected. TV picture viewing	Press to see the update of information on certain pages. When an update is received.
	Press to view the page.	Press to display the News Flash.	Press to view the page.
TV/AV 	Return to normal TV operation.		

## Index



CH SEARCH

Press to return to the main index page.

Depending on the way information is transmitted, this may have to be pressed more than once to return to the main index page.

## Sub Coded Page Access

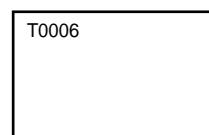
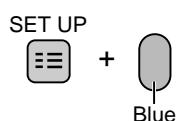
When Teletext information exceeds more than one page, it may take some time for the automatic changing of the sub pages to reach the sub page you require.

It is possible to enter your required sub page and continue watching the normal programme until the correct sub page is found.

**[0] – [9]**

Select the required page number using buttons 0 - 9.

If the top of the page indicates that sub pages are being transmitted yet the page does not change, then the number at the top of the page is there to indicate that the broadcaster has updated the page's contents, there are no sub pages.



Enter desired sub page number before the T\*\*\*\* disappears. To select page 6 enter 0, 0 and 6.



Viewing a normal TV programme. Viewing the Teletext page.

**[0] – [9]**

Select a new page number.



Press to return to normal TV operation.

# Advanced Remoto Control Operation

## Stereo Bilingual Sound Selection



When you receive the stereo/bilingual sound system, sound output modes can be selected by pressing the stereo/bilingual sound selection button.

Audio Signal	STEREO	MAIN I	SUB II	MONO
Mode Indicator	∞	I	II	▽

**NICAM** .....used in New Zealand, Malaysia, Thailand, Indonesia etc.

Type of broadcast	Regular broadcast (Standard Audio)	Regular + NICAM MONOI (MAIN I)	NICAM STEREO	NICAM DUAL MONO (MAIN I / SUB II)
Mode Indicator	No Indicator ↔ ▽	I ↔ ▽	∞ ↔ ▽	I → II ↑ ▽ ←

**A2(German)** .....used in Australia, Malaysia, Singapore, China.

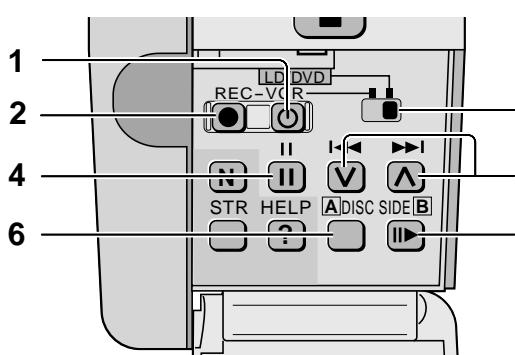
Type of broadcast	Regular broadcast (Standard Audio)	BILINGUAL or DUAL MONO: MAIN I / SUB II	STEREO
Mode Indicator	No Indicator ↔ ▽	I ↔ II	∞ ↔ ▽

### Notes:

- If the stereo signal is poor or the receiving conditions are not optimum or if STEREO:MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.
- Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
- When the receiving conditions deteriorate, listening will be easier if the mode is set to the "MONO" position, using the stereo/bilingual sound selection button.
- "DUAL", also known as "DUAL MONO" or as "BILINGUAL" is not currently transmitted in some countries.

## VCR / LD / DVD Control

The Remote Control is capable of operating some functions of selected Panasonic VCRs, LD and DVD (Digital Versatile Disc) equipment. Some VCR, LD and DVD equipment have different functions. So to ensure compatibility please refer to the equipment's instruction book or consult your dealer for details.

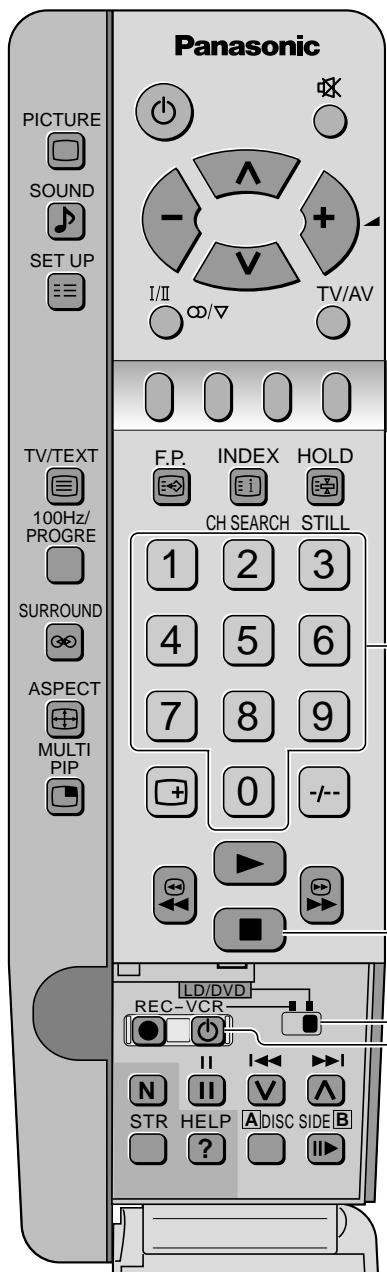


Button	Function	
	VCR	LD/DVD
1	Power Switch	
2	REC (Record)	
3	VCR/LD, DVD Select button	
4	Pause/Still	
5	Programme Number Up and Down	Programme Skip
6	DISC SIDE A Selection	
7	DISC SIDE B Selection	

# Advanced Remoto Control Operation

## Manufacturer setting

Remote Control Operation is possible for the VCR's, LD's and DVD's of the various manufacturers. After completion of setting, execute the various operations .



1

Press to select VCR or LD /DVD.

2

While pressing the VCR / LD / DVD Power button, press the manufacturer code (enter the two digit code), and press the VCR / LD / DVD Stop button.

### VCR

Manufacturer	Code	Manufacturer	Code
Panasonic/ National	10,11,12,13	NEC	40,41,42,43
AIWA	15,16	ORION	45,46
FUJITSU	20	PHILIPS	50
HITACHI	25,26,27	SANYO	55,56,57,58
JVC	30,31,32	SHARP	60,61
MITSUBISHI	35,36	SONY	65,66,67
		TOSHIBA	70,71

### LD

Manufacturer	Code	Manufacturer	Code
Panasonic	10,11,12,13	SAMSUNG	30
KENWOOD	15,16	SHARP	35
PHILIPS	20	SONY	40,41,42,43
PIONEER	25		

### DVD

Manufacturer	Code
Panasonic	70, 71

### Note:

After setting, execute operation confirmation.  
If there is no operation, set a different code.

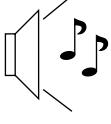
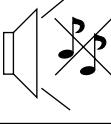
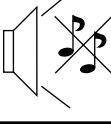
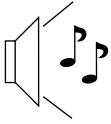
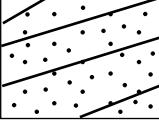
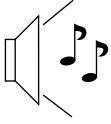
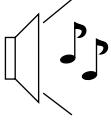
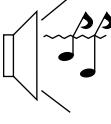


### Helpful Hint

- (1) The respective VCR / LD / DVD manufacturer code is cancelled when battery has been exchanged.  
Please set it again.
- (2) Depending on the model, operation of VCR's, LD's or DVD's of the manufacturers listed above may not be possible.
- (3) In some cases, new products may not be operative.
- (4) It will not operate with other than the above manufactures.

# Troubleshooting

Before you call for service, determine the symptoms and make a few simple checks as shown below.

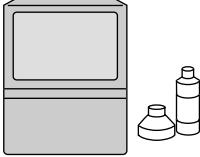
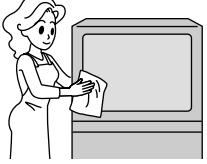
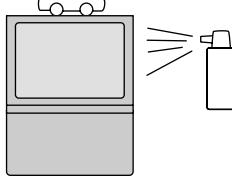
Symptoms		Checks
Picture	Sound	
	Snowy Picture	 Noisy Sound Aerial Location, direction or Connections
	Multiple Image	 Normal Sound Aerial Location, direction or Connections
	Interference	 Noisy Sound Electrical Appliances Cars/Motorcycles Fluorescent Lamps
	Normal Picture	 No Sound Volume (Refer to page 14, 15) (Check whether the mute function has been activated on the Remote Control.)
	No Picture	 No Sound Not plugged into AC outlet Not switched on Contrast and Brightness/Volume setting (Check by pressing the Power Switch or Stand-by Button on the Remote Control.)
	No Colour	 Normal Sound Colour Control (Refer to page 30, 31) Colour System (Refer to page 28)
	Scrambled	 Normal or Weak Sound Retune Channels (Refer to page 21)
	Coloured Patches	 Normal Sound Magnetic interference from unshielded equipment; TV set moved while "ON". Turn the TV set off for 30 minutes, using the "Power" Switch on the TV set.
	No Colour	 Noisy Sound Sound System (Refer to page 28) Colour System (Refer to page 28)

## Projection TV screen

Symptoms	Checks
 After-images appear	<p>Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Projection TV screen. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 16:9 mode.</p> <p><b>Note:</b> The permanent after-image on the Projection TV screen resulting from fixed image use is not an operating defect and as such is not covered by the Warranty. This product is not designed to display fixed images for extended periods of time.</p>

# Cleaning

To ensure continued excellent performance by this product, periodic cleaning is recommended.

 	<p>The unit contains many plastic parts. For this reason DO NOT use benzine, thinner or other chemicals to clean the unit.</p>		<p>Dust will accumulate on the picture screen. Please wipe with a soft cloth from time to time. If you use a chemically treated cloth, please be careful to follow the instructions that come with the cloth.</p>
 	<p>DO NOT bring into contact with insecticide or other volatile substances. DO NOT allow the unit to come into contact for extended periods with rubber or vinyl products.</p>		<p>Remove dirt and soiling by wiping with a light cloth. Even if the unit is heavily soiled, do not apply cleaner directly to the unit. Soak a cloth in a solution of neutral cleanser thinned with water. Then wring out the cloth, wipe the unit clean, and finish by wiping with a dry cloth. Do not use any type of cleansers on the picture screen.</p>

# Specifications

	<b>TC-43P400H / TX-43P400H TC-51P400H / TX-51P400H</b>	<b>TX-43P400X / TX-51P400X</b>	
<b>Power Source</b>	AC 220-240 V, 50/60 Hz	AC 110-240 V, 50/60 Hz	
<b>Power Consumption</b>	228 W Stand-by condition 3.0 W	238 W Stand-by condition 3.0 W	
	<b>TC-43P400H, TX-43P400H/X</b>	<b>TC-51P400H, TX-51P400H/X</b>	
<b>Dimensions ( W × H × D )</b>	932 mm × 1260 mm × 520 mm	1095 mm × 1385 mm × 520 mm	
<b>Mass (Weight)</b>	54 kg (Net)	60 kg (Net)	
<b>Remote control Transmitter</b>	EUR511250.....TX-43P400H/X, TX-51P400H/X R6 (AA) Battery × 2	EUR511251.....TC-43P400H, TC-51P400H	
<b>Receiving System</b>			
21 Systems		Function	
1	PAL B, G, H	Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders.	
2	PAL I		
3	PAL D, K		
4	SECAM B, G		
5	SECAM D, K		
6	SECAM K1		
7	NTSC M (NTSC 3.58/4.5 MHz)		
8	NTSC 4.43/5.5 MHz	Playback from Special VCR's	
9	NTSC 4.43/6.0 MHz		
10	NTSC 4.43/6.5 MHz		
11	NTSC 3.58/5.5 MHz		
12	NTSC 3.58/6.0 MHz		
13	NTSC 3.58/6.5 MHz		
14	SECAM I		
21 Systems		Function	
15	PAL 60 Hz/5.5 MHz	Playback from Special Disc Players and Special VCR's	
16	PAL 60 Hz/6.0 MHz		
17	PAL 60 Hz/6.5 MHz		
18	SECAM 60 Hz/5.5 MHz		
19	SECAM 60 Hz/6.0 MHz		
20	SECAM 60 Hz/6.5 MHz		
21	NTSC 50 Hz/4.5 MHz		
<b>Receiving Channels</b>			
Regular TV			
<b>VHF BAND</b>			
2-12 (PAL/SECAM B, K1)			
0-12 (PAL B AUST.)			
1-9 (PAL B N.Z)			
1-12 (PAL/SECAM D)			
1-12 (NTSC M Japan)			
2-13 (NTSC M U.S.A)			
<b>UHF BAND</b>			
21-69 (PAL G, H, I/SECAM G, K, K1)			
28-69 (PAL B AUST.)			
13-57 (PAL D, K)			
13-62 (NTSC M Japan)			
14-69 (NTSC M U.S.A)			
<b>CATV</b>			
S1-S20 (OSCAR)			
1-125 (U.S.A CATV)			
C13-C49 (JAPAN)			
S21-S41 (HYPER)			
Z1-Z37 (CHINA)			
5A, 9A (AUST.)			
<b>Receiving Stereo System</b>	NICAM 1, NICAM B/G, NICAM D, A2 (German)		
<b>Tuning System</b>	Frequency synthesizer	Auto Search Tuning POSITION : 100 Position DIRECT : 125 Position	
<b>Audio Output</b>	24 W [ 12 W + 12 W ] ( 10 % THD ), 30 W [ 15 W + 15 W ] ( MAX )		
<b>Speaker System</b>	FULL RANGE (13 cm) × 2 .....TC-43P400H, TX-43P400H/X Woofer (13 cm) × 2 + TWEETER (6 cm) × 2 ....TC-51P400H, TX-51P400H/X		
<b>Headphones</b>	3.5 mm Plug × 2		
<b>Aerial Impedance</b>	75 Ω Unbalanced coaxial		
<b>Video/Audio/Component Terminals</b>	AV 1, 2, 3, 4	S Video In Y/Pb/Pr Video In Audio In Monitor Out Video Out Audio Out  AV1 IN (Rear) : S Video, Video, Audio L/R terminals AV2 IN (Rear) : Video or Y/Pb/Pr, Audio L/R terminals AV3 IN (Front) : S Video, Video, Audio L/R terminals AV4 IN (Rear) : Video or Y/Pb/Pr, Audio L/R terminals  Applicable signal to AV2, AV4 Y/Pb/Pr input terminals: 480i(525i), 576i(625i), 480P(525P) and 576P(625P)	Y:1 Vp-p, 75 Ω C:0.3 Vp-p, 75 Ω  1 Vp-p, 75 Ω Approx. 0.5 V 47 KΩ 1 Vp-p, 75 Ω Approx. 0.5 V 1 KΩ

**Note:** Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

**Customer's Record**

The model number and serial number of this product can be found on its cabinet. You should note this serial number in the space provided below and retain this book plus your purchase receipt as a permanent record of your purchase to aid in identification in the event of theft or loss and for Warranty Service purposes.

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_